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P. 96

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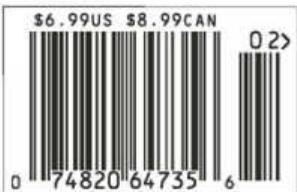
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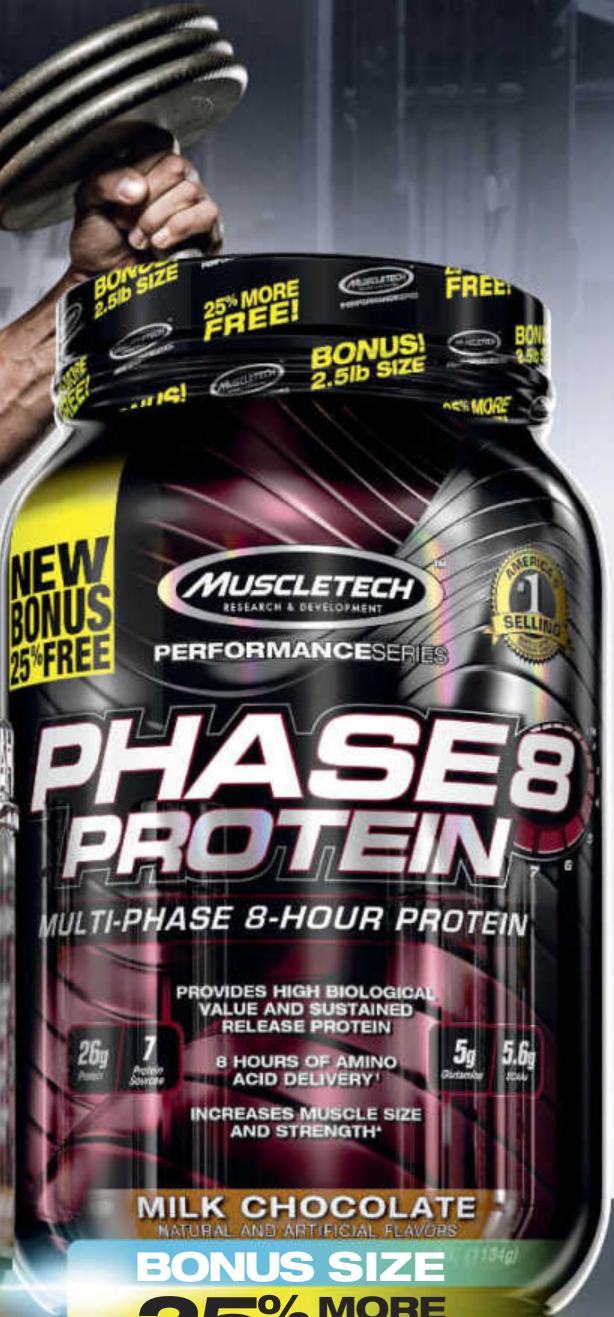
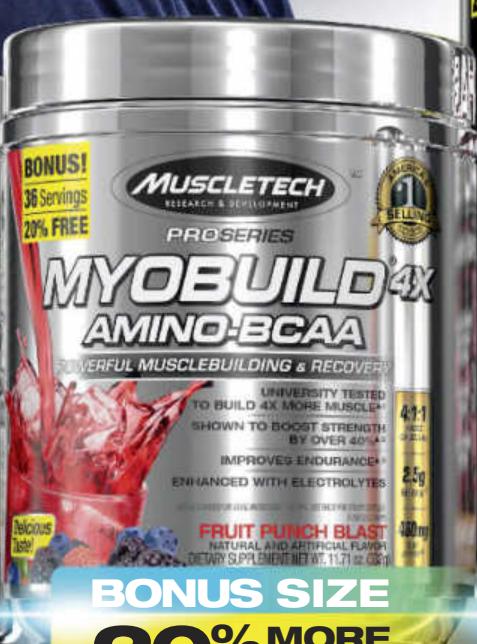
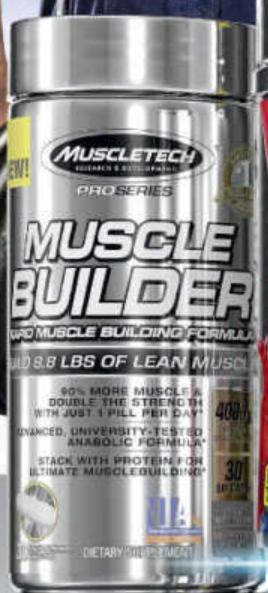


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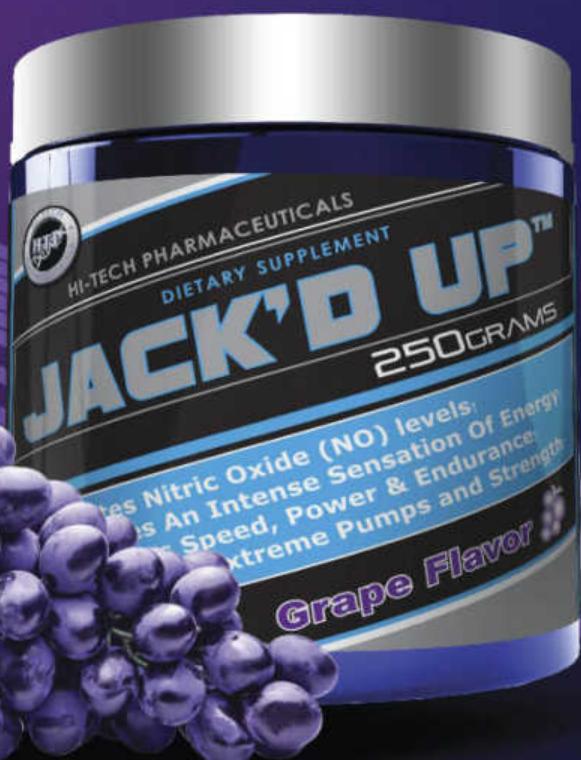
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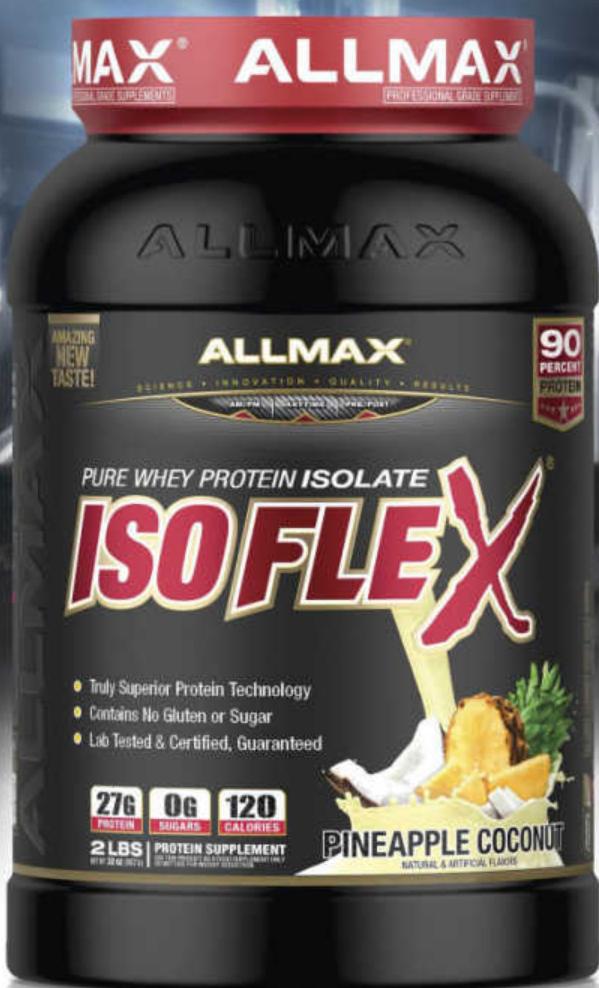
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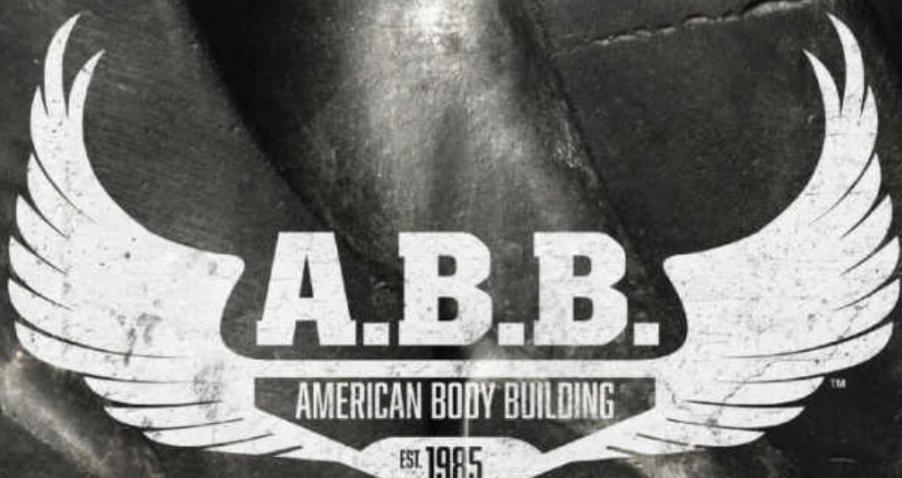
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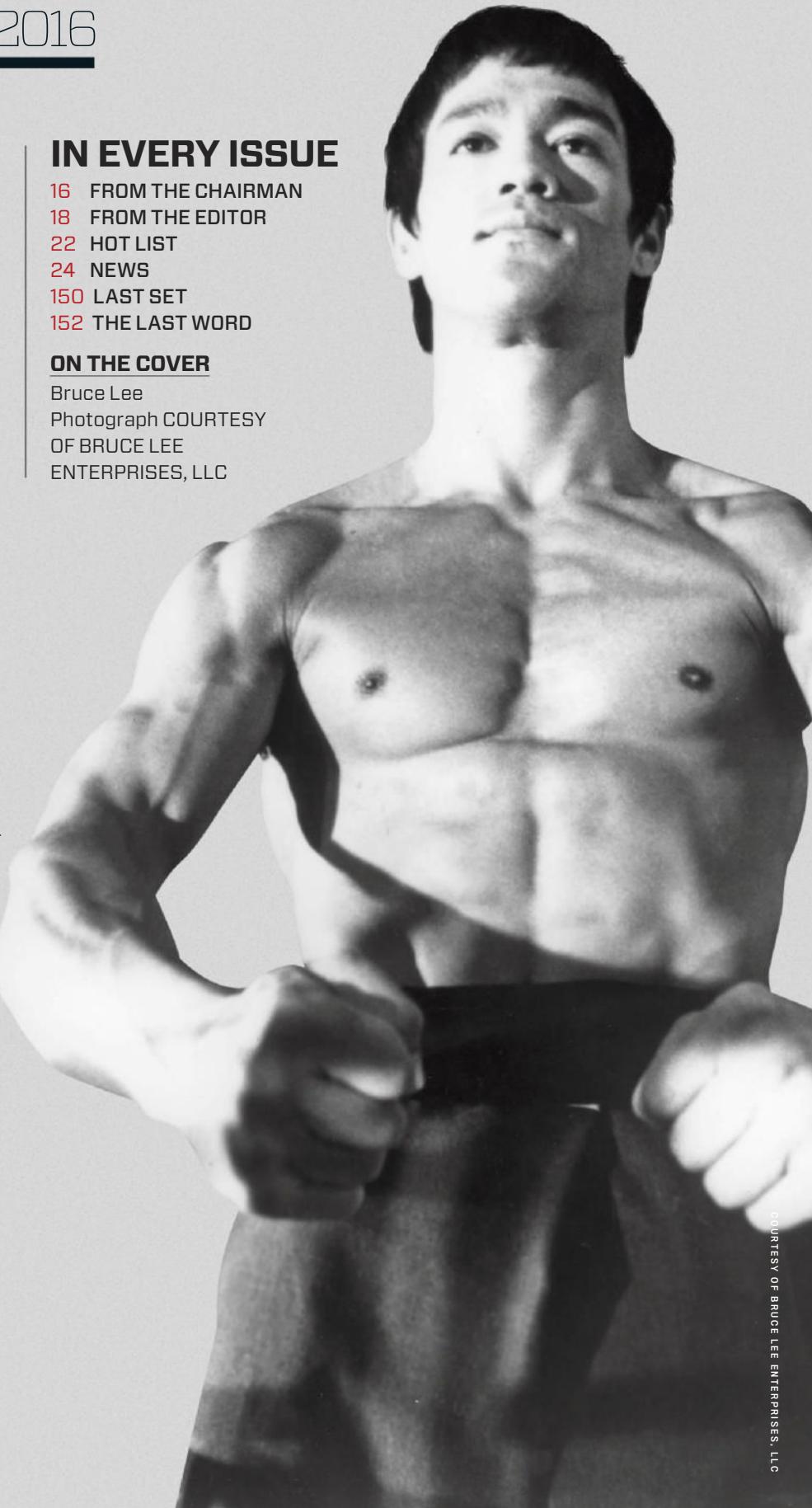
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Bruce Lee

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Lee Way

BRUCE LEE set examples four decades ago that we should still follow today.

IF YOU'RE A LONGTIME READER

of this magazine you've no doubt noticed that this isn't the first time we've featured Bruce Lee on our cover. In fact, it's the fifth. Why devote so much valuable editorial space to a man who passed away more than 40 years ago? The answer is simple: While Bruce Lee, the man, may no longer be with us, his ability to motivate is as strong today as when he was alive.

Every once in a long while, a person comes along who transcends the average, capturing our imagination and inspiring us to do better. Bruce Lee was such a person, and through the example he set during his brief 32 years on earth, he created a legacy that is as fresh and vital here in 2016 as it was in 1973, when he died. And while we all know Bruce as a legendary martial artist, it's not just his physical prowess that has so deeply ingrained him in our collective consciousness, but also his intellect. Bruce's teachings were focused not only on the training of the body, but of the mind, too, and in his contemplations he left us with extraordinary quotes—words to live by:

"A goal is not always meant to be reached, it often serves simply as something to aim at."

"Adapt what is useful, reject what is useless, and add what is specifically your own."

"To hell with circumstances; I create opportunities."

These quotes can be applied to training and to life. This is the genius of Bruce Lee.

I encourage you to read Martin Rooney's insightful cover story on page 96, along with an amazing Lee-inspired training program. Then consider how you can apply Bruce Lee's philosophies to improve your own life.

Sincerely,



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Meat(less) Head

Our editor tried Meatless Mondays—and lived to tell about it!

I'VE BEEN AN INVETERATE

musclehead since Jimmy Carter was president, which is to say, for a very, very long time. In past issues I've told of how I received my first copy of *M&F* when I was 13, and while never achieving my boyhood dream of becoming the world's greatest bodybuilder (nor, for that matter, a halfway decent one), I've faithfully followed the bodybuilding lifestyle ever since. That, of course, has meant lots of hard training and the consumption of copious amounts of protein—animal protein in particular.

Then, a few years ago, I watched

the meat industry documentary *Glass Walls*, narrated by Paul McCartney, and could no longer look at red meat without feeling

queasy. I had qualms about eating poultry, too, but reasoned that chickens are lower on the evolutionary scale than cows and...hey, I had to have some kind of animal protein if I wanted to continue to keep my muscles! Still, a nagging voice in my head asked if I really needed to adhere to such a meat-centric diet.

A couple of months ago my girlfriend started doing "Meatless Mondays"—a movement that encourages people to forgo animal products one day a week—for ethical, health, and sustainability reasons. Then, this past December, that pillar of the *M&F* lifestyle, Arnold Schwarzenegger, pronounced that he would begin practicing Meatless Mondays himself (see his



NOTHING TO LOSE

Our editor cut his meat intake by half and hasn't lost an ounce of muscle.

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column on page 150). Never a big eater to begin with (despite his big biceps), Arnold knows that raising cows and bringing them to market account for more greenhouse gases than all forms of transportation on this planet combined. Ever the environmentalist, he decided to put his veggies where his mouth is one day a week and, in doing so, make a stand for the planet.

What more motivation did I need? So a couple of Mondays ago I ditched meat in favor of a vegetable-based diet for one day. At the end of that day I found that I not only didn't miss indulging my inner carnivore, but I was "lighter" inside—not as weighed down by my food as I normally would have been. The health benefits I felt from supplanting meat with vegetables and fiber were almost immediate. Without giving it much thought, I ended up forgoing animal protein two

more days that week, and so began a new way of eating for me.

I'm not vegan or even vegetarian. I still eat some fish, poultry (pasture-raised, organically fed, humanely raised and slaughtered), and eggs, but I've found that reducing my meat intake by a good 50% hasn't resulted in the loss of an ounce of muscle mass and has me feeling more energetic. Plus, the peace of mind I've gained makes it a no-brainer.

Should you give it a try, I want to know how it went. E-mail me at editor@muscleandfitness.com and let me know!

More Power to You,

Shawn Perine
Editor in Chief

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It's cold—we get it—but don't let it bother you. Here are six ways to avoid getting fat this winter. [/winterlean](#)

POSTON STRONG: OPERATION 16

M&F teamed up with Jason Poston, IFBB pro and two-time Olympia Physique top 3 competitor, to create a total body program designed to help you put on quality muscle while leaning out—presented by ProSupps. [/postonstrong](#)



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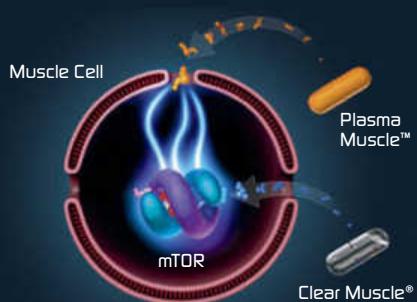


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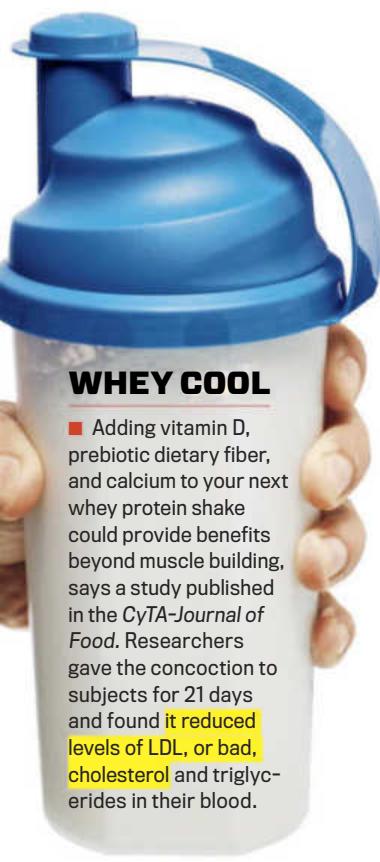
BODY-FAT LOSS

■ Scientists at the U. of Texas' Health Science Center monitored three groups who either did yoga, gym exercises, or whatever activity they consistently enjoyed. Each participant was tested for body-fat percentage and physical fitness at the start of the study. After exercising for three hours per week for one hour during each session, each group had similar physical improvements and everyone lost about 4% of body fat. The takeaway? Consistency is still the main key to fitness.



SOMETHING FISHY

Most docs agree that fish oil is the one supplement everyone should be taking daily, and scientists at Kyoto University have just added to the evidence. They discovered that fish oil can actually help manage weight gain in middle age by turning the cells that store fat into cells that burn fat. The researchers found that fish oil may help activate so-called "beige" fat, which metabolizes fat instead of storing it. They gave fish oil to mice with their meals and found that they gained up to 10% less weight and 25% less fat compared with mice that didn't get the oil.



WHEY COOL

■ Adding vitamin D, prebiotic dietary fiber, and calcium to your next whey protein shake could provide benefits beyond muscle building, says a study published in the *CyTA-Journal of Food*. Researchers gave the concoction to subjects for 21 days and found it reduced levels of LDL, or bad, cholesterol and triglycerides in their blood.

STRONG WORDS

"A LOT OF PEOPLE ARE AFRAID OF HEIGHTS. NOT ME, I'M AFRAID OF WIDTHS."

■ Steven Wright

200

NUMBER OF ADDITIONAL CALORIES MEN BURNED IN A DAY WHEN THEY PERFORMED 25 MINUTES OF INTERVAL TRAINING.

■ Colorado State University

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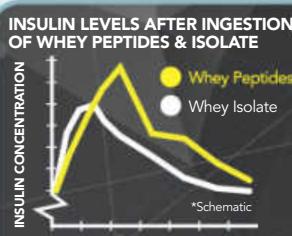


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SLEEP WORKS

■ Along with all the other important benefits of getting a good night's sleep—better memory, enhanced immune system, improved muscle recovery—research recently published in *PLOS Medicine* established that physically inactive people who sit for most of the day and sleep less than seven hours a day or more than nine hours a day are more than four times as likely to die early than a person with a healthy lifestyle.

**MIDLIFE & FITNESS**

■ Rest assured that just by picking up this magazine and following our time- and gym-tested tips, you are most likely extending your life. A new study from Vanderbilt University Medical Center found that people in midlife who have high levels of fitness go on to have much lower annual health bills when they get past age 65. Researchers studied almost 20,000 people over 22 years from age 49 to 71 and worked out that the fit subjects saved about \$5,000 in health-care costs each year once they got into their golden years.

**JUST A SPOONFUL OF SUGAR**

■ Before your next big physical event, like a Mud Run or CrossFit Benchmark WOD, try a trick discovered by researchers at the U. of Bath in England. Their study tested various carb concoctions on long-distance cyclists' endurance and levels of glycogen (or energy) in the liver and found that to maximize energy, or carb availability, you should use table sugar, a type of sucrose, to keep the pace up. Recommendations are to take about $1\frac{1}{2}$ tablespoons of sugar diluted in $3\frac{1}{2}$ ounces of water each hour for exercise lasting more than $2\frac{1}{2}$ hours.

**THANKS FOR THE MEMORIES**

Forget to do cardio again? Research out of the Boston University School of Medicine may, ahem, jog your memory the next time you pass the treadmill. The study tested adults ages 18 to 35 on their aerobic capacity on a treadmill, then used an MRI to view areas of the brain that deal with memory. Those with higher aerobic fitness had more gray matter in the memory banks, supporting previous data that suggests cardio can play a role in preventing cognitive decline as you age.



“PHYSICAL FITNESS IS NOT ONLY ONE OF THE MOST IMPORTANT KEYS TO A HEALTHY BODY, IT IS THE BASIS OF DYNAMIC AND CREATIVE INTELLECTUAL ACTIVITY.”

■ John F. Kennedy



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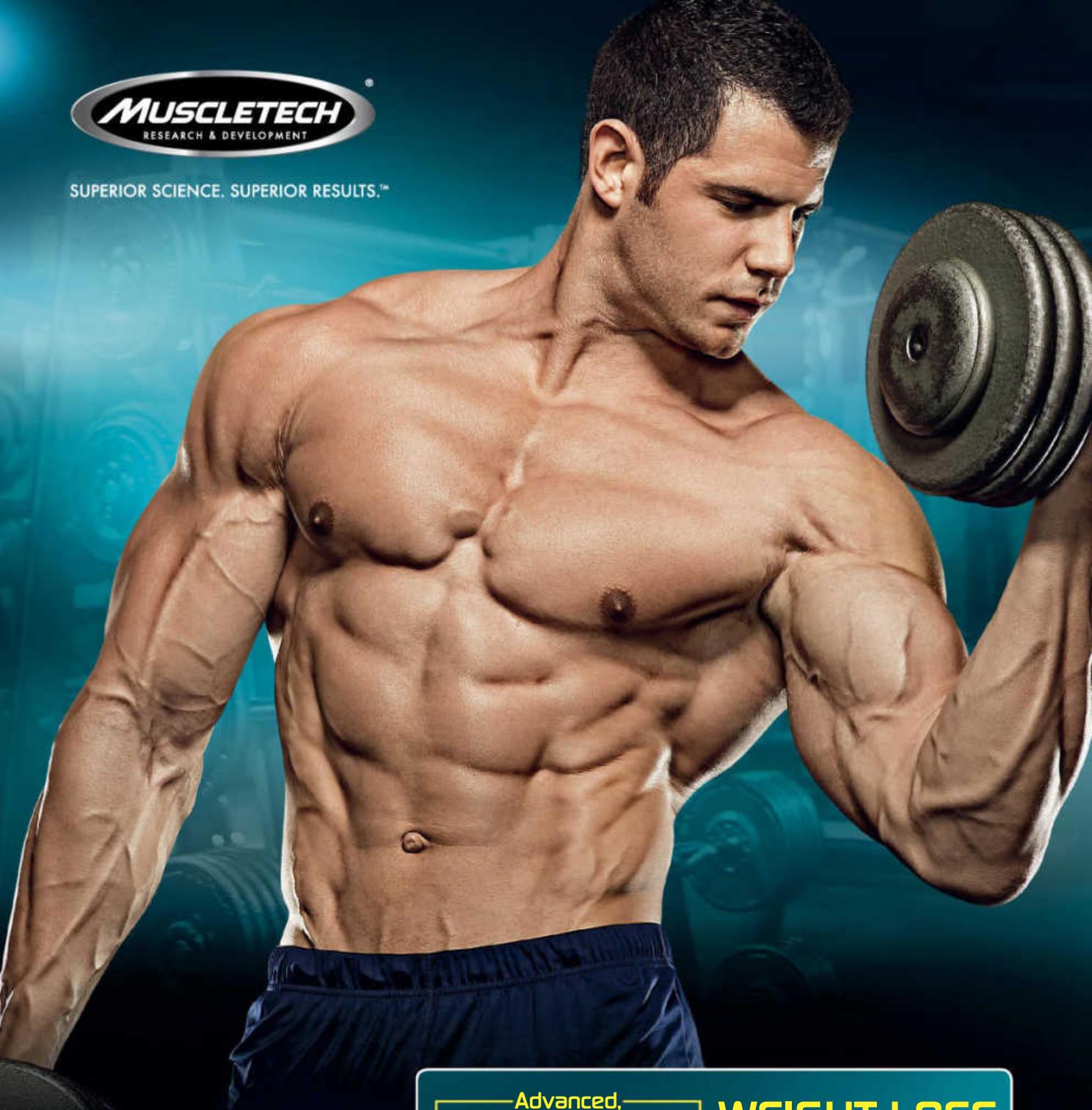
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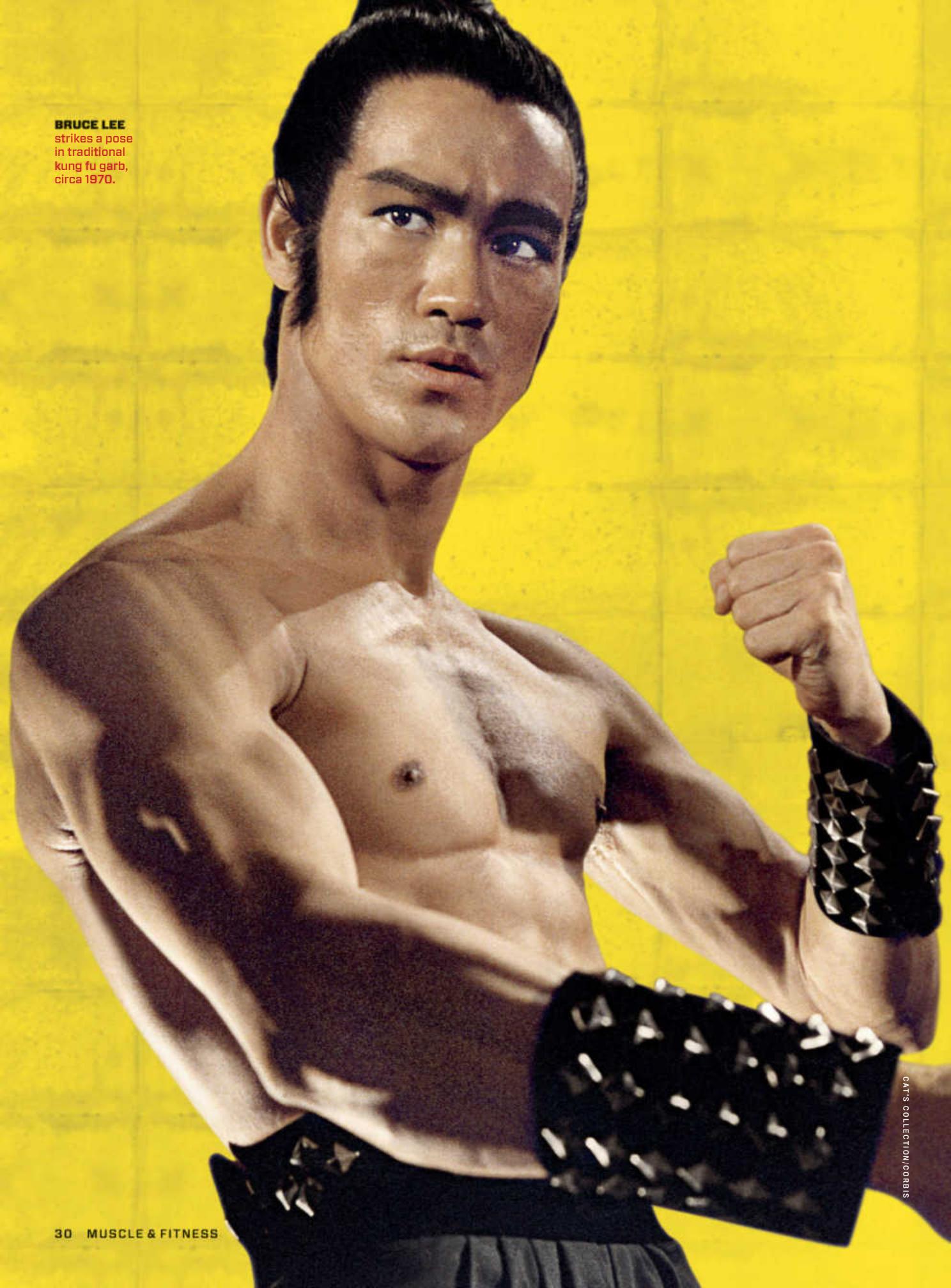
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BRUCE LEE
strikes a pose
in traditional
kung fu garb,
circa 1970.



CAT'S COLLECTION/CORBIS

TOUGH AS THEY COME

BRUCE LEE headlines our list of the ultimate badasses in movie history, proving that a guy needs more than size to leave an impact. Yes, some of the guys on this list had great muscle size, but others had very little. However, every single one of them presented a toughness on the big screen that mirrored who they were in real life. Here, we tip our hats to Bruce Lee and the **TOUGHEST HOLLYWOOD LEGENDS** of all time.

/// BY JOE WUEBBEN

At only 5'7" and 135 pounds, Bruce Lee is certainly the smallest guy who made our list of the toughest of the tough, but that didn't stop him from headlining it. Simply put, he had it all: the shredded physique, the lightning-fast martial arts movements, and the mental fortitude to top it all. Often facing multiple attackers, Lee had no problem conquering his foes and dismantling all

of them with his bare hands, making it look easy in the process. He could send a 300-pound bag flying to the ceiling with just one kick and needed only his famous one-inch punch to put any guy on his ass. Lee redefined strength and toughness—both mental and physical. Moreover, he brought his spiritual ideology on these topics to the mainstream, turning the mind-muscle connection into something people could truly understand. For that reason alone, his legendary status is secure.



TOUGH AS THEY COME



CHARLES BRONSON

Not only did Bronson's characters kill countless bad guys in cold-blooded fashion, he also flashed an impressive physique in movies like **Hard Times** (1975) and **House of Wax** (1953).

JIM BROWN

First of all, Brown dominated the NFL long before the sport was wussified with "targeting" and "helmet to helmet" personal-foul penalties. Then he had ass-kicking roles in action films throughout the 1960s and '70s, including **The Dirty Dozen** (1967) and **Slaughter** (1972).

JAMES CAAN

He nabbed a starring role in **The Godfather** (1972), one of the toughest films of all time. Then, living through Kathy Bates shattering his ankles with a sledgehammer in **Misery** (1990) took him to another level of toughness. Extra credit: Caan trained regularly at Gold's Gym Venice for years.

VIN DIESEL

The shaved head, the deep voice, the guns busting out of his T-shirts. Every character Diesel plays is an intimidator, particularly those in the **Fast & Furious** and **Riddick** franchises. Even as a stockbroker in **Boiler Room** (2000), he was an imposing force.

CLINT EASTWOOD

The older he gets, the grittier he gets. He was a bad man in **Dirty Harry** (1971), but more recently he unflinchingly took on gang violence in **Gran Torino** (2008) and played a tough-as-nails boxing trainer in **Million Dollar Baby** (2004).

CLOCKWISE FROM TOP LEFT: MONDADORI PORTFOLIO/GETTY IMAGES; AF ARCHIVE/ALAMY; WARNER BROS/GETTY IMAGES; JOHN DOMINIS/GETTY IMAGES; AF ARCHIVE/ALAMY; SCREENPOD/ALAMY; AF ARCHIVE/ALAMY (4)



TOM HARDY

The youngest guy on the list at 38, English actor Hardy was a scary (and yoked) dude in **Warrior** (2011), **The Dark Knight Rises** (2012), and **Mad Max: Fury Road** (2015). Lean, mean, and rugged, he obviously crushes it in the weight room—our kind of guy.

STEVE McQUEEN

He was the consummate "do your own stunts" kind of actor, as he was a car-racing and motorcycle enthusiast who often participated in his characters' chase scenes, including one in **The Great Escape** (1963). McQueen served in the Marines from 1947-50.

ARNOLD SCHWARZENEGGER

As if **Conan**, the **Terminator**, and Dutch (**Predator**, 1987) weren't tough enough, recall Arnold as Ben Richards in **The Running Man** (1987). Constantly outmanned, he came out alive in hands down the most sinister game show ever.

SYLVESTER STALLONE

Does getting mashed to a pulp in a boxing ring by men bigger than you but still finding a way to beat those behemoths by the final bell qualify as tough? Thought so. **Rocky Balboa** equals tough.

THE ROCK

We can all think of scenarios in which the biggest guy isn't necessarily the toughest. (Think Goliath.) Dwayne Johnson definitely meets both criteria. He's 6'5", 250-plus pounds, and kicks ass in every role he takes on.

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STAR POWER

Joe Rogan dishes on T injections and a lot more, p38.

SPORTS

It's 1993 again—Royce Gracie and Ken Shamrock are back at it, p42.

IRON MAIDEN

Meet the first Iron Maiden you can play Warcraft with, p46.

GEAR

Upgrade your kitchen with these high-tech picks, p58.

EDGE

NEWS / INTERVIEWS / SPORTS / GEAR

READY FOR ACTION

Running backs Melvin Gordon of the Chargers, left, and Miami's Jay Ajayi, below, are EXOS clients.



REDEFINING FITNESS

The trainers at EXOS work from the philosophy that the needs of the athlete and the desk jockey aren't all that different. **BY STEVE MAHANAHAN**

WHAT IS PERFORMANCE?

It's a question that seems fairly straightforward, but answers can vary wildly depending on whom you ask. Ask a powerlifter. Then a marathon runner. Or, perhaps, an elite computer programmer. You'd get three very different answers, and all three would be right.

It's thinking like this that influences the team at EXOS.

EXOS, a worldwide set of more than 400 training facilities (12 of which are open to the public, the rest are military and corporate facilities), caters to everyone from pro football players looking to shave time off their 40 to busi-

nesspeople hoping to gain an edge and applies the same training and nutrition framework to each.

"Performance is different for everyone, but if you look at it from a benefits standpoint, the notion tends to click a little bit easier," says Joel Totoro, nutrition solution manager at EXOS.



With that in mind, EXOS takes the training principles it applies to pro athletes and pares them down for its other clients as appropriate. Pros move through a workout that consists of eight distinct phases: soft-tissue work (called pillar prep), a traditional warmup (think dynamic stretches), plyometrics, sport-specific fitness development, rotary power (medicine ball work), strength and power (weightlifting), energy-systems work (conditioning), and regeneration.

Nick Winkelman, EXOS' director of movement and education, says general population clients will run through pillar prep, movement prep, rotary power development, strength and power development, and regeneration. The three phases they skip (movement skill development, sport-specific fitness, and energy systems) more directly correlate to on-field production and won't necessarily provide added benefit. Reinforcing healthy movement patterns, however, provides a ton of benefits.

"When people go to the gym, they're trying to lose body fat, look better, and be healthier," Winkelman says. "Those are all valuable reasons. But one of the things we're trying to do with our general population clients is get them to understand that movement from a value-proposition perspective does so much more than that."

FORM AND FUNCTION EXOS trainers improve physiques by improving performance.



Increased performance is generally easy to spot—a few more pounds on your bench, for example. If you're trying to communicate the benefits of training and eating for performance to a group of financial analysts, the benefits might be less obvious. To illustrate the point, Totoro compares a businessperson crisscrossing the country to the life of a linebacker.

"At the end of the game, the athlete is dehydrated, has an electrolyte imbalance, his joints hurt, and if it's a night game, he's amped, so sleep is a problem," Totoro says. "Similarly, at the end of a cross-country flight, you have a businessperson sitting in a pressurized cabin, they've got major electrolyte deficiencies, joint pains, and their internal clock is thrown off by time zones. They're for different reasons, but the issues are the same—and their careers depend on their performance after they land."

THE WORKOUT: FROM JOE TO PRO

Below, EXOS provided a single strength workout built for the general population but designed to address the basic needs of athletes.

Strength Circuit I

Do three rounds of the following circuit. Rest 90 seconds to two minutes after the final exercise.

EXERCISE	REPS
Alternating DB Bench Press	8
Single-leg DB RDL*	8
DB Front Squat to Press	8

*Hold one DB in each hand.

Strength Superset

Do the following superset twice. Rest one minute between supersets.

EXERCISE	REPS
Standing Cable Lift*	8
Split-stance DB Curl to Press	8

*Perform as a reverse woodchopper, going diagonally upward across your body.

Strength Circuit II

Do two rounds of the following circuit. Rest 90 seconds to two minutes after the final exercise.

EXERCISE	REPS
Lateral Hip Bridge*	10
DB Lateral Slide Squat**	8
Single-leg One-arm DB Row***	8
Swiss Plate Crunch (Behind Head)	15

*Set up in a plank position, then roll onto your forearm and stack your feet, keeping your hips slightly off the floor. Extend your hips toward the ceiling from this position. That's one rep.

**Hold a pair of dumbbells at shoulders. As you squat low, slide one foot out to the side. Repeat for eight reps per side.

***Perform a dumbbell row from a standing position, with one leg out behind you. Repeat for eight reps per side.

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Joe Rogan

The outspoken UFC color commentator and stand-up comedian talks testosterone injections, the pros of pot use, and why he's his own worst critic.

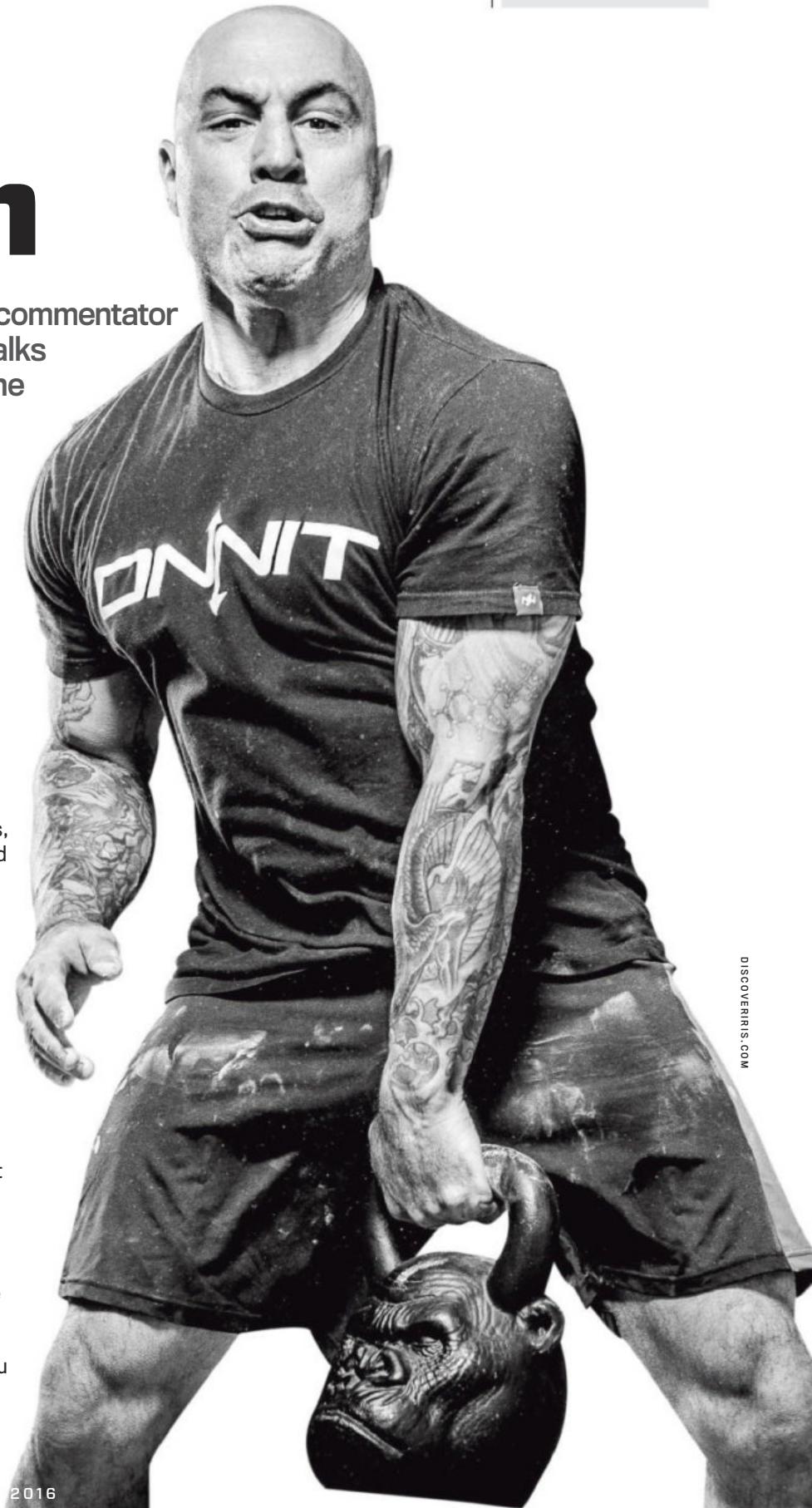
What has your experience been receiving testosterone injections?

At 48, the body doesn't produce as much testosterone, and I feel better when I take it. I'm not advocating taking a hyperhuman level, but a responsible dose on a weekly basis adds a lot to overall health as long as it's under the care of a doctor's supervision. Some guys don't want to admit they need it. It's a manliness thing: "Oh, you get your testosterone from a bottle? I get mine from my balls, bro!" But doctors who work in the field of preventive medicine or who have researched hormone replacement and bioidentical hormones are for it because it enhances your health.

You're open about your marijuana use. Why is the myth that pot makes people lazy inaccurate?

Marijuana isn't why you're lazy—you're lazy because...there's a lack of work ethic and understanding of how to get through life and not have regrets. I get my workouts in and all of my writing done, and I smoke pot all the time.

When used responsibly and intelligently marijuana can relieve pain, aid creativity, enhance feelings, and make sex feel better and food taste better. I don't believe in waking and baking and staying fucked up the whole day. If you want to do it, fine, but that's not how I use it. One thing I do love to do is get high and go to yoga class.





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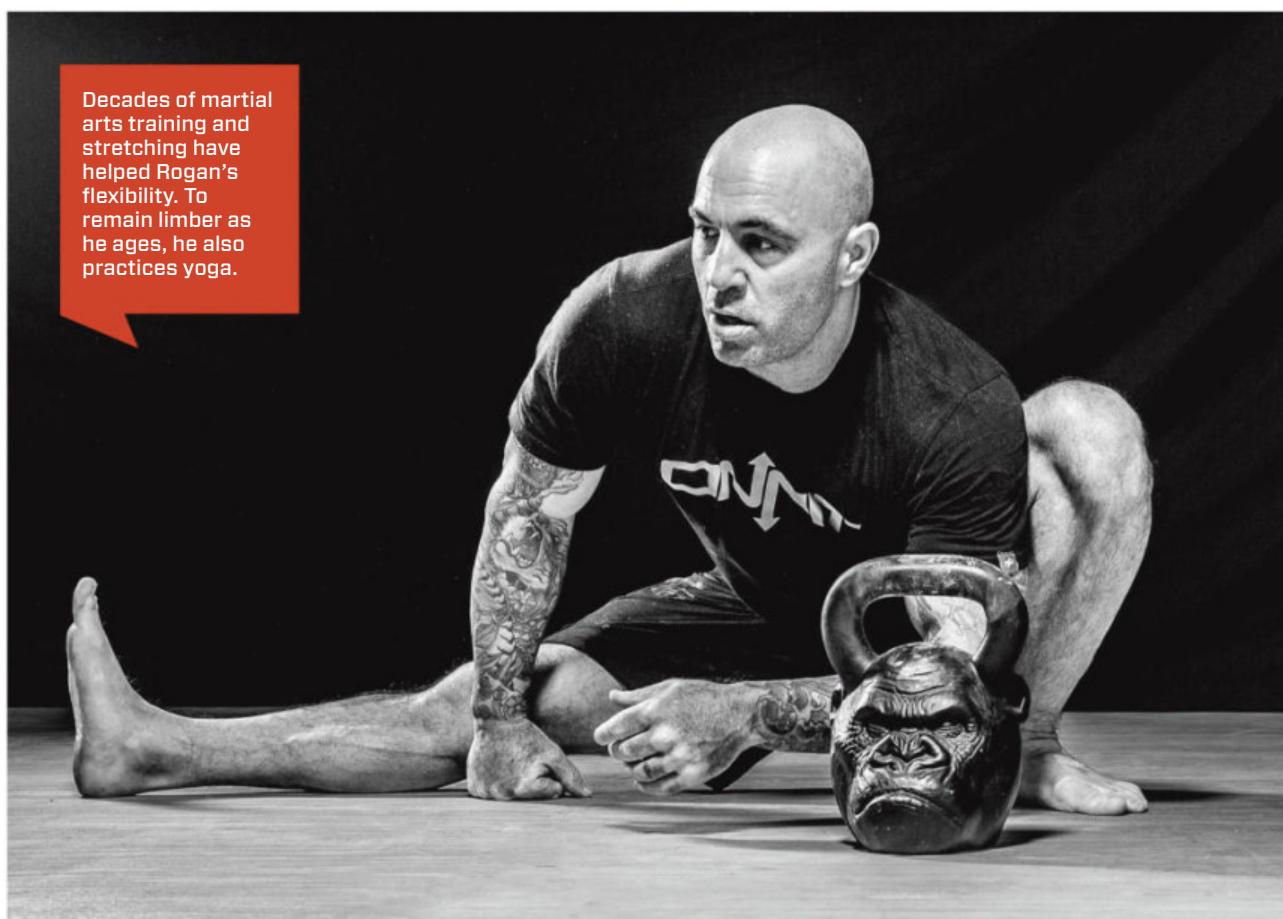
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Decades of martial arts training and stretching have helped Rogan's flexibility. To remain limber as he ages, he also practices yoga.



How often do you do yoga?

I'm doing it at least twice a week, and I try to do yoga exercises at home before I work out with weights. As you get older, you become more aware of body maintenance and how nagging injuries can become chronic unless you take care of them. You don't get buff or look yoked, but yoga is beneficial for overall health, movement, and flexibility.

Concerning your writing and comedy career, how critical are you of your work?

Very. The only way to improve is to be critical of what you've done. You might see only a little flub or hole, but looking at what you fucked up will allow you to avoid it the next time.

Does that get exhausting?

The key is not to beat yourself up

too much. I take care of my mind... and all of my obligations, so I don't have as many demons. People who don't take care of their obligations...have regrets and feel like they've left things unfinished or left a lot on the table.

What's your connection to Onnit Academy?

I helped form Onnit with my good friend Aubrey Marcus. I'm a fan of nootropics—nutrients that enhance cognitive performance. One we came up with was Alpha Brain.

Were you involved in creating the Onnit kettlebells?

Originally we created normal-looking kettlebells, and then we threw around the idea of creating ones that looked like gorillas and great apes. We hired an artist...and had the kettlebells 3-D mapped and balanced. We wanted them to be beautiful, but if the balance was funky you wouldn't get a good workout. Now there's a werewolf, bigfoot [which weighs in at a whopping 90 pounds], zombies—lots of cool shit.

"I GET MY WORKOUTS IN AND ALL OF MY WRITING DONE, AND I SMOKE POT ALL THE TIME."

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Grudge Match

MMA legends **ROYCE GRACIE** and **KEN SHAMROCK** have a score to settle at Bellator 149.

BY MARK BARROSO

MORE THAN 22 years after they clashed at UFC 1, MMA legends Royce Gracie and Ken Shamrock will square off for a third time on Feb. 19 at Bellator 149. The inaugural matchup in 1993 went to Gracie, who submitted Shamrock in 57 seconds. Their rematch nearly two years later was billed as a "Superfight." It wasn't. After an uninspiring 36 minutes that consisted mostly of Shamrock pinning Gracie to the floor, the bout was declared a stalemate. "He didn't try anything; he just held me down," Gracie says. "He came in for the draw."

For decades, Shamrock lobbied for another rematch, claiming last-minute rule changes before both fights put him at a disadvantage. "[At UFC 1] they took my shoes away, but I had never not worn shoes," he recalls. "It felt like my feet were slipping and unbalanced." And at UFC 5 when he was informed prefight of a 30-minute time limit, he had a theory: "I thought, 'They're protecting themselves because they understood how good a shape I was in.' The rule changes have always stuck in my head, and I've wanted to get another fight so I could think, 'You guys tried, and you lost.'"



BAD BLOOD
"He's not my enemy. I just don't like the guy," Gracie says of Shamrock.

GRACIE'S STRENGTH AND CONDITIONING WORKOUT

Routine designed by Gracie's strength coach James Strom. Perform 1A-C, 2A-C, 3A-C, and 4A-C as four trisets. Moves 1, 2, and 4 are done wearing a 20-pound weight vest. Do each move for four sets.

EXERCISE	DURATION	EXERCISE	DURATION
1A. Resistance Band Lateral Shuffle	30 sec.	3A. Resistance Band Prone Pull***	12 reps (each side)
1B. Double Shuffle with Level Change	30 sec.	3B. Dumbbell High Pull	8-10 reps (each side)
1C. Standing Trunk Rotation	15 reps (each side)	3C. Prone Shuffle with Sprawl****	40 sec.
2A. Prone Jump-through*	30 sec. (each side)	4A. Incline Dumbbell Row	8-10 reps (each side)
2B. Dumbbell Iso Press	12 reps	4B. Heavy Bag Situp	12 reps
2C. Lateral Prone Push**	25 sec. (each side)	4C. Single-leg Mountain Climber	15 reps (each side)

*From 3-point position (one hand, two feet down), bring one leg through to front of body. Return leg to start.

From pushup position, jump laterally with the left hand and foot to the left. Land in a semi-pushup position. Return to start. *From 3-point position, pull an anchored band toward body.

****With hands on ground, shuffle body in semi-circle from hand to hand. Sprawl on command.



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*Scheett, et al. Consuming branched-chain amino acid supplement during a resistance training program increases lean mass, muscle strength and fat loss. Journal of the International Society of Sports Nutrition 2009, 6(suppl 1):P1

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Bellator 149: Gracie vs. Shamrock
airs live Feb. 19 on Spike TV.

Despite MMA fans yearning for a Gracie vs. Shamrock 3, it never came together. And when Gracie retired in 2013, it seemed as though it never would—until last November, when Bellator MMA announced that the two UFC Hall of Famers would clash in the cage one more time. It was a victory for Shamrock, whose persistent goading had finally paid off.

Gracie, now 49 years old, hasn't competed since 2007. To shake any ring rust, he began doing two-a-days last November with emphasis on grappling, standup, and strength and conditioning. Non-MMA specific training has relied mainly on body-weight exercises to improve core strength, balance, and endurance.

"I'm a grappler, so I'm not going to exchange firepower standing up," he reveals. "I train standup to understand what's coming to me. My game plan is to choke him out."

Shamrock, who is 2-8 in his last 10 fights, has also made adjustments since prep started. "The World's Most Dangerous Man" believes training with familiar faces—former UFC fighter Guy Mezger and his adopted brother,

Frank Shamrock—will provide him an edge come February. "Mentally, I have direction and determination just from having these guys around," he says.

Shamrock declined to provide specifics about his training, preferring to keep his opponent in the dark. (He did provide a sample workout from a past training camp, at right.) Diet-wise, his meals consist of chicken, steak at least twice a week, fruits and vegetables, and pasta and rice (getting "good energy" from starches).

With a sound strategy, the right diet, and unwavering confidence, Shamrock is convinced he'll be the victor when the final bell tolls at Bellator 149. "Do I believe that I'm better than he is, have all the skills, and that I should win the fight? Absolutely."

SHAMROCK'S MMA WORKOUT

EXERCISE	ROUNDS	TIME
MORNING		
Shadowboxing	6	3 min.
Mitt Work	6	3 min.
Agility Training*	1	30 min.
EVENING		
Situational Grappling**	1	75 min.

*Might include: box jumps, jumping rope, lunge jumps, step-ups, tire flips, sledgehammer tire slams, and footwork drills.

**30- to 60-second drills from the clinch or ground are a component of his grappling training.

GRACIE

★★★★★ VS. ★★★★★ SHAMROCK



ROYCE GRACIE



KEN SHAMROCK

14-2-3	RECORD	28-16-2
49	AGE	52
6'1"	HEIGHT	6'
178-180 lbs	WEIGHT	200-203 lbs
Redondo Beach, CA, by way of Rio de Janeiro, Brazil	FIGHTING OUT OF	Reno, NV
Gracie jiu-jitsu	FIGHTING STYLE	Shoot-fighting



SIZE MATTERS

"A good big guy is going to beat a good little guy every time," Shamrock says.

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Let's Play

ALICIA MARIE is an avid gamer geek, writer, and fitness model—and doesn't let anything slow her down. **BY PAMELA NULLET**

BESIDES INSPIRING HER FOLLOWERS

with Instagram workouts, Alicia Marie, the author of *The Booty Bible* and self-proclaimed comics nerd, talked to us about turning her own hearing loss (she's partially deaf) into a superpower.

"I can't hear haters and negative talk," she says. "You can't get anything done in this life if you spend too much time thinking about all the things you can't do." Here's what else you need to know about her.

GAME ON

Alicia's a gamer girl who loves *World of Warcraft* in particular. She has partnered with the developer Blizzard, even alpha testing its games.





FOLLOW ALICIA

Find Alicia Marie on Instagram and Twitter at [@AliciaMarieBODY](#)

SHE...

... loves to cosplay. She once appeared as Storm from *X-Men* on a live podcast with Stan Lee—and saved the day when the sound went out. “I read the caller’s lips and relayed the questions to Stan.”

... feels sexiest right after a workout and after she mauls someone in the *World of Warcraft* arena.

... works hard on her abs (and it shows). “You can’t cry about genetics when you see someone with a tight tummy. It takes hard work and discipline.”

... hates spiders, but tested her limits when she once held a tarantula for five seconds.
... can walk on her hands, thanks to gymnastics training as a tot.

... sings Fleetwood Mac in the shower.

... holds a dual degree in neuroscience and psychology.

... digs guys with passion, who unabashedly admit their geeky tendencies.

... almost lost her bikini top while onstage. “It was a nightmare, as my top began unraveling and I was trying to keep my composure at the same time.”

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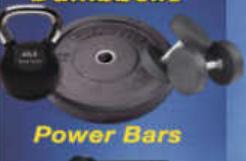
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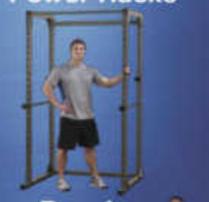
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EDGE RETRO

Veg Out

Back in '95 we said only losers don't eat meat.

BY MATT TUTHILL

MILOS SARCEV and Sharon Bruneau showed off their toned midsections on the cover of the February 1995 issue. It perfectly captured the spirit of '90s M&F, which was to say inspirational, if a bit nonsensical. Are they on uneven bars?

Overall, it was a solid issue in which we pondered the risks of HGH, went in-depth on a Gary Strydom training feature, and caught up with the ageless Robby Robinson.

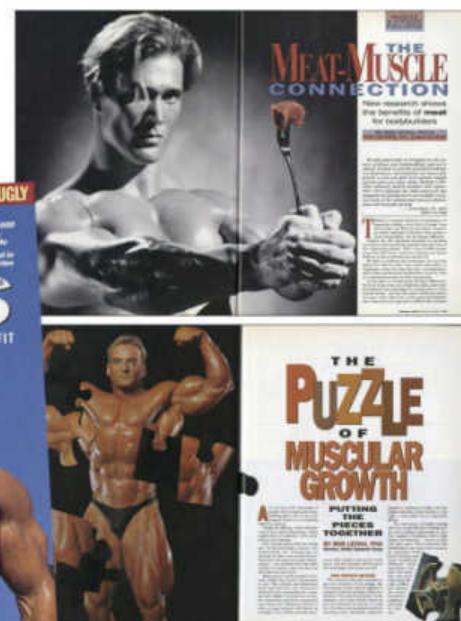
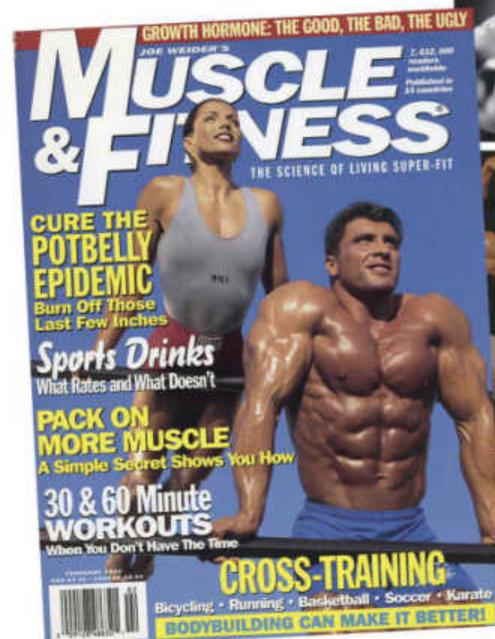
But we jumped the shark with a story on the "meat-muscle connection," which serves as a perfect reminder of just how far we've come in the past 21 years. Back then, author Bob LeFavi all but kicked sand in the faces of vegetarians everywhere. "We hate to reinforce the stereotype, but we'd be lying if we said we didn't notice that often vegetarians seem less muscular than non-vegetarians..."

Later, he adds, "For bodybuilders interested in maximizing muscle mass and maintaining an anabolic environment, avoiding meat might be akin to shooting oneself in the foot!"

All this, despite citing several exceptions to the rule, including bodybuilding vegetarians Bill Pearl, Andreas Cahling, and Steve Brisbois.

Today, in this very issue, both editor in chief Shawn Perine and executive editor Arnold Schwarzenegger urge all of us to lay off the meat at least occasionally in the name of saving the planet, if not your own health. M&F senior editor Zack Zeigler is also fully vegetarian, though you'd never be able to guess by the size of the guy's biceps.

So, while the entire article is not off base (it rightly dismissed cholesterol concerns as largely overblown), we're proud today to at least retract the spirit of this article, which implied that you were dead in the water if you didn't eat meat. Balance your diet, and your life, and success will follow.



"LEANING" OUT

At left: Sadly, Milos Sarcev would go on to wreck his legendary symmetry, bloating his arms and legs with synthol. At top: Mike O'Hearn and a piece of meat. Above: Solving the "puzzle" of muscle growth.

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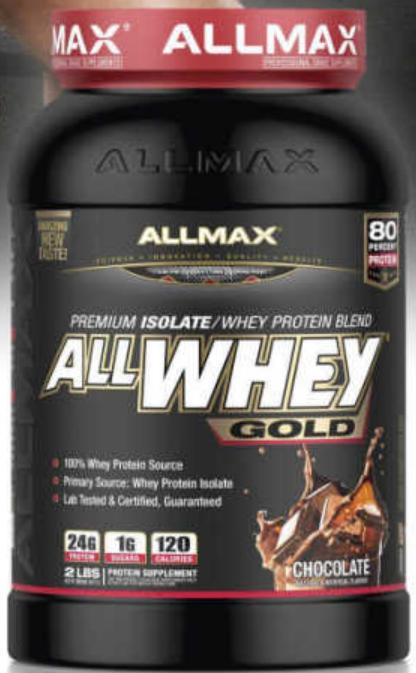
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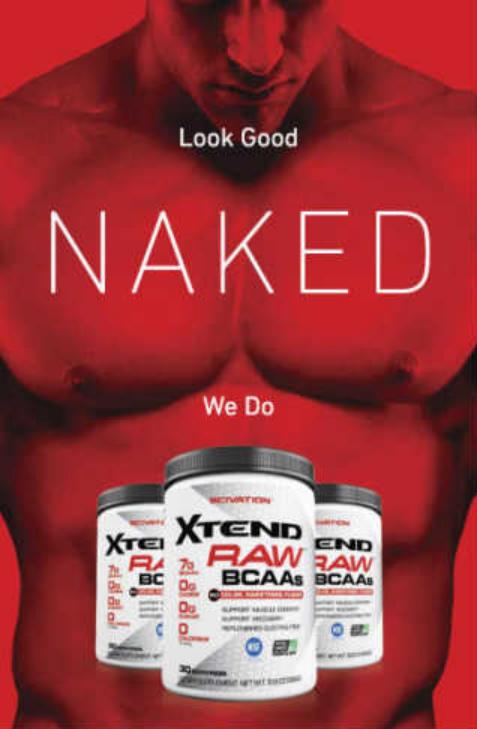
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EDGE ASK M&F

Burning Questions

Our experts answer the fitness queries that are keeping you up at night.

Q: **I heard it's bad to roll my shoulders when I'm doing shrugs, but a lot of guys do it. How bad could it be?**

—HANS S ANGELES



A: **IT'S A** terrible idea," says Mike Geremia, a certified personal trainer working in New York City who also serves as technical adviser on M&F photo shoots. "It's like getting shitfaced and texting your ex at 3:30 in the morning. In short: Rolling forward mimics the upper-cross syndrome that we try so hard to eliminate in most people." The upper-cross syndrome refers to tightness in the upper traps and pecs—a problem most desk jockeys

are susceptible to because of all those hours they spend hunched over a computer. Mimicking terrible posture under load increases the risk of injury to the shoulders and neck even more, says Geremia, who recommends you shrug the old-fashioned way—straight up and down. "If you want to roll your shoulders, pop in a Jane Fonda tape from 1984."

Q: **I often put raw eggs into my protein shakes. How bad is the salmonella risk, really?** —DAVE R., SPRINGFIELD, MA

A: According to nutritionist David L. Katz, M.D. (davidkatzmd.com), "The absolute risk is low, but it is real. If there is salmonella in the barnyard, it can get on the eggs, and when the eggs

are cracked, it can get in. Cooking kills it." Salmonella poisoning might entail a week's worth of cramps and diarrhea and could also lead to Reiter syndrome, which can cause chronic arthritis.

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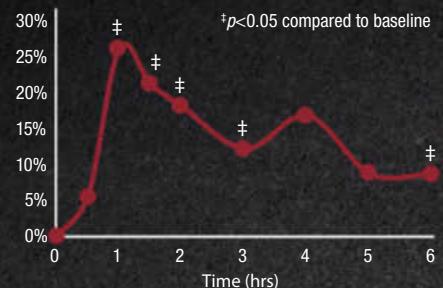
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Goruck has had 3,179 events; 791 were in 2015. To date, 105,000 people have entered a Goruck event.

Get Soldier Strong

Hiking with a heavy backpack, or “rucking,” is a fitness trend that actually works.

BY MARK BARROSO

IF YOU'RE IN THE ARMY, you need to be able to complete a 12-mile heavy-ruck march in less than three hours and 30 minutes. Special Forces members wear 45-pound rucksacks during all training and may ruck thousands of miles while in the qualification course. As it seems to happen with every aspect of military fitness, weighted backpack walks, or rucking, has exploded in popularity.

Founded in 2008 by former Army Special Forces Communications Sergeant Jason McCarthy, Goruck hosts outdoor challenges during which an officer leads participants through a military-inspired event. Goruck also designs, manufactures, and sells heavy-duty rucksacks.

“Rucking is active resistance training, so you get strength gains from the weight on your back and cardio benefits from walking,” says McCarthy. Goruck offers three levels: Light (four to five hours), Tough (10 to 12 hours), and Heavy (24-plus hours).

Challenges include more than walking. There are strength exercises such as pushups, squats, presses, and partner carries. Some participants are given roles like team leader or navigator, which require quick thinking. “We want people to become more physically and socially active, and we think teaching people things is more valuable than telling people what you can't do,” says McCarthy. “People miss playing sports and the camaraderie of being part of a team.”

Rucking provides a substantial fitness benefit. Follow these steps to make your own pack, then put it on and get rucking.



OUT ALL DAY The Heavy, shown here, is Goruck's most extreme event: 40-plus miles outdoors without sleeping.

DO IT YOURSELF: MAKE A RUCKSACK

Directions courtesy of Jason McCarthy, founder of Goruck.
What you need: Backpack, weight, and water.

1 PACK IT

Place four bricks wrapped in duct tape, sandbags, or any other heavy object in a backpack. Start with about a 20-pound load.

2 SECURE IT

Make sure the weight is stable and close to your back. If you must, fill the pack up with light items so the weight doesn't constantly shift.

3 HYDRATE ON THE GO

Use a hydration bladder that has a tube so you can drink water on the move efficiently. Keep it in the bag or attach the tube to a backpack.

4 OR GO PRO

If you'd rather purchase a new rucksack, McCarthy suggests the Rucker, available at goruck.com.



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ABOUT THE DOCTOR

Victor R. Prisk, M.D., is a board-certified orthopedic surgeon, NCAA All-American gymnast, and GNC medical advisory-board member.



Cool Your Heels

Plantar fasciitis can shoot your training in the foot. Here's how to fix it.

BY VICTOR R. PRISK, M.D.

PLANTAR FASCIITIS

It's hands down the most common cause of foot pain in active individuals. The plantar fascia is a band of tissue (a ligament) that spans from your heel to the base of your toes on the bottom of your foot. Its job is to help maintain your longitudinal arch, especially in the push-off phase of walking or running. Overuse, unsupportive footwear, a tight calf, excess body weight, performing activities on hard surfaces such as concrete, and systemic diseases like diabetes, gout, Lyme disease, or rheumatism can all lead to the tissue's inflammation. In turn, this can create severe heel pain upon rising in the morning, moving after sitting for long periods, and being on your feet for long stretches—especially when standing on hard surfaces. Protecting the flexion and strain on the plantar fascia is critical to getting plantar fasciitis under control. In the box at right are a few things that will help.



KICK HEEL PAIN FOR GOOD

Unfortunately, there is no single method to alleviate heel pain. Try a combination of all four of these methods for relief.

GASTROC STRETCH

Stretching the gastrocnemius muscle—a straight knee-calf stretch—can help to offload the Achilles' pull on the foot.

GET A BRACE

Tightness in the calf can pull on the heel and lead to pain. Wear an overnight splint to reduce calf tightness. Also try rigid yet cushioned shoes or orthotic supports.

DIY MASSAGE

Massaging the plantar fascia while pulling your toes up with your hand or by rolling your foot on a lacrosse ball or ice-filled water bottle can loosen contracted fascia.

LIMIT EXERCISES

Cut back on running, climbing, jumping, and other activities that make the calf tight (for example, being on the ball of the foot).

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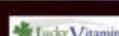
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GNC
LIVE WELL

**MATT KLUTKA,
1979-2015**
Matt died on Dec.
11, 2015, sur-
rounded by
his loved ones.



Klutka's Legacy

In December 2015 we told you the story of Matt Klutka and his battle for survival against an aggressive form of cancer. Here, we memorialize his life. **BY MATT TUTHILL**

THE PITCH CAME THROUGH

in a text message. A friend of a friend telling me about "the most jacked cancer patient ever." The wording made me snort, but of course I had to see. He told me to look up Matt Klutka. A quick glance at Twitter and Facebook and I could tell he was active, loved the outdoors, and lifted—and I couldn't really tell how sick he was. How bad was the cancer? This guy had abs and pecs,

and...Matt only had weeks, my friend said. And it had already been a month and a half. He was only 36 years old.

Our photo director immediately hired a photographer to go to Matt's house. I scheduled a phone interview for the day after the shoot. A few hours before we were supposed to talk, the shots came through. We looked at the training shots first. He was jacked. Yes, the disease had taken a toll, but the muscle definition

was, amazingly, still there. It was unbelievable. Then the photo director showed me the portraits. He was smiling in all of them.

When I called him, he talked about how great the shoot was and how excited he was to be in the magazine. It had been a lifelong goal. Then I started with the obvious question: How did he get here?

He spared no detail as he ran through the past two years of his life in matter-of-fact terms. How the shortness of breath and swelling in his legs led him to the doctor and a diagnosis of a rare and aggressive cancer. He told me about the multiple surgeries that followed; how training his ass off had been his self-

HOW TO HELP You can help provide for Matt's son, Cebran, at gofundme.com/klutkaskrusaders

medication and escape; how he was making as much time as possible to spend with his son, Cebran; how he met his girlfriend while he was sick. Then he told me what he had learned.

"The things I used to worry about or obsess over, I know they're just meaningless," he said. "Time is the most precious currency we have. You never know when your time is up. You have to take advantage of every moment you have with your friends and family and loved ones because that can be taken away in an instant. Everything else can be replaced."

It's the kind of thing that's a meaningless platitude coming out of anyone else's mouth—share bait for Instagram. But coming from Matt, who stopped periodically throughout the call to cough, the tumors in his lungs making it hard to breathe, it punched me in the gut. What bullshit had I been annoyed by or upset about moments before? It was embarrassing to think about. At that moment, I was just thankful I had closed the door to my office. No one had to see that I wasn't handling the call very well. I tried to hide it from Matt, but by the time I had fully broken down, it was pointless. I asked if he must be used to it. Yes, he was, but he embraced his role as an inspiration to others.

"My friends have been awesome," he said. "They come to visit, and some of them get upset. I just say, 'Hey, I'm still here. I still feel pretty good. There's no reason to be upset. Let's be happy and go do something fun.' I try to motivate people and make them happy."

A man with terminal cancer cheering everyone else up—including me. I pointed out the absurdity of that, and we had a good laugh.

The story I wrote about Matt went into the December 2015

issue of *M&F*. Given the circumstances, we put the story online first so it could be shared. Dwayne "The Rock" Johnson, our cover guy and guest editor for December, asked to see some of the other stories that were going into his issue. When he read Matt's story, he asked for a phone number. Fifteen minutes later, they were chatting like old friends, swapping war stories about the gym. Right after that, The Rock took to social media to share what an amazing experience he had just had.

I knew the feeling. Because at the end of my call with Matt—a man I never met face-to-face—I found myself blurting out, "I love you, man." He didn't hesitate to say it back. I also told him that I had no clue about what his idea of God might be, but I was certain that we'd meet one day. He agreed.

Matt lived another two months—and what a two months they were. On top of training, he raced Ferraris, went on the sidelines to see the Pittsburgh Steelers and the Alabama Crimson Tide, and spent a lot of time with his son, his girlfriend, and his parents.

For those close to Matt, I can't imagine how much his passing hurts. But I also know they're lucky to have had such an incredible person in their lives.

If time is the most precious commodity we have, it was especially true for Matt. He chose to give me a half hour of that time, and my life is far richer for it.

Dwayne Johnson's Instagram support of Matt Klutka.



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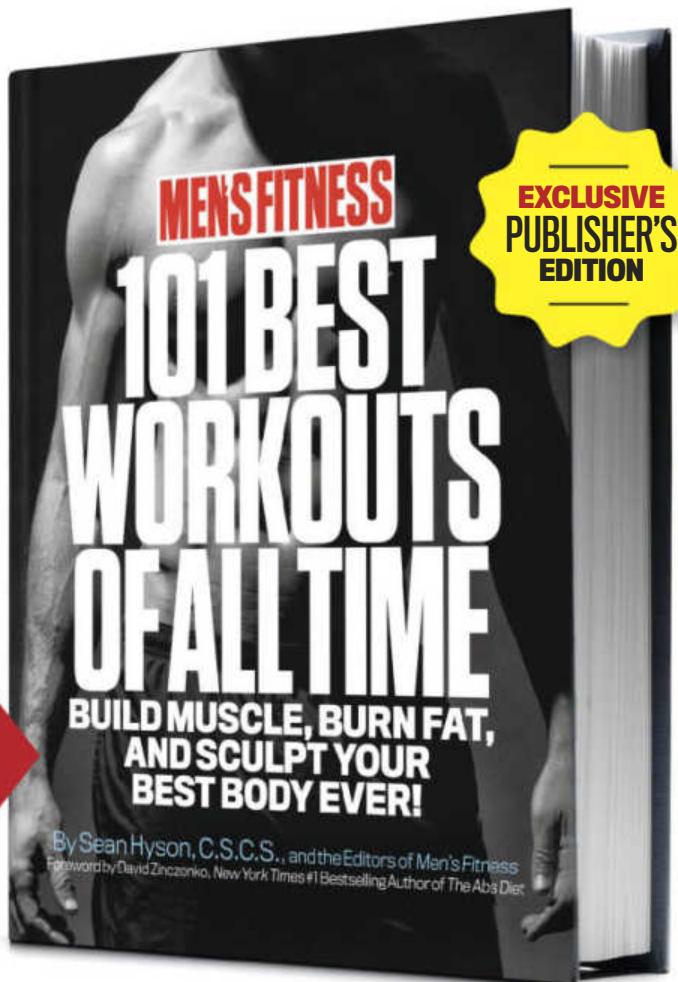
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ABS & CORE

This farmer's walk makes your core work harder, p68.

EXPERT ADVICE

Brad Davidson shows you how to reset your metabolism, p72.

FRANK ZANE

When to say goodbye to your beloved bench press, p74.

OVER 40

How former Olympian Ricky Brim turns back the clock, p76.

TRAIN

BUILD MUSCLE, BURN FAT, PERFORM BETTER

Leading the Way

Former *M&F* cover athlete and IFBB men's physique pro **STEVE COOK** is training to be the ultimate ambassador of fitness

BY ROGER LOCKRIDGE



TRAIN PHYSIQUE

WITH OVER TWO MILLION

social media followers on Facebook, Instagram, YouTube, and Twitter, IFBB physique pro Steve Cook lives for motivating the masses—and the self-described "Swoldier" employs several training styles to stay lean.

"I start my workouts with a compound or Olympic weightlifting exercise, then I do isolation moves for bodybuilding benefits," Cook says. "Everything has a performance and function focus."

Cook also runs half-marathons and says he's eyeing triathlons. Dietwise, things are simple.

"If I train more, I eat more complex carbs. If I train less, I eat less," Cook says. "I focus on clean and whole foods, but I do indulge occasionally. I guess it would be a type of flexible dieting. Before a shoot, I cut back on carbs and fat."

STEVE'S WORKOUT UPPER-BODY

DIRECTIONS: Perform the exercises marked A and B as supersets; do a set of A, then B, until all sets are done.

EXERCISE	SETS	REPS	REST
1. Bench Press*	8	8, 5, 3, 3, 2, 1, 1, 1	3 min.
2A. Bench Press**	5	2	2 min.
2B. Pullup	5	3	2 min.
3A. Seated DB Military Press	3	5	—
3B. DB Lateral Raise	3	8	—
3C. Lying Side Raise	3	6	90 sec.
4A. Smith Machine Incline Bench	2	8-12	30 sec.
4B. Lat Pulldown	2	8-12	30 sec.
4C. Machine Shoulder Press	2	8-12	30 sec.
4D. T-bar Chest-supported Row	2	8-12	2 min.

*Use 45%, 55%, 65%, 75%, 85%, 90%, 95%, 100% of 1RM.

**90% of 1RM.

COOK'S TOP FOUR TIPS TO BUILD A BRAND

BE AUTHENTIC

Don't try something you don't believe in. People will see through it, and it won't be successful.

FIND YOUR NICHE

What are you passionate about and good at? Follow that for your best chance of success.

CONTENT IS KING

Creating content that people can go to works. The more quality content you can produce, the better.

BRAND = JOB

This is going to be your business, so go all in on it. But create an environment you enjoy so you don't burn out.

COOK'S STATS

Age: 30

Height: 6'1"

Weight: 215 lbs

Home: Las Vegas, NV

Website:
[stevecook
health.com](http://stevecookhealth.com)

Sponsor:
[Optimum Nutrition](http://optimumnutrition.com)

For Steve Cook's recipes, check out his e-book, *Cook Effect*.



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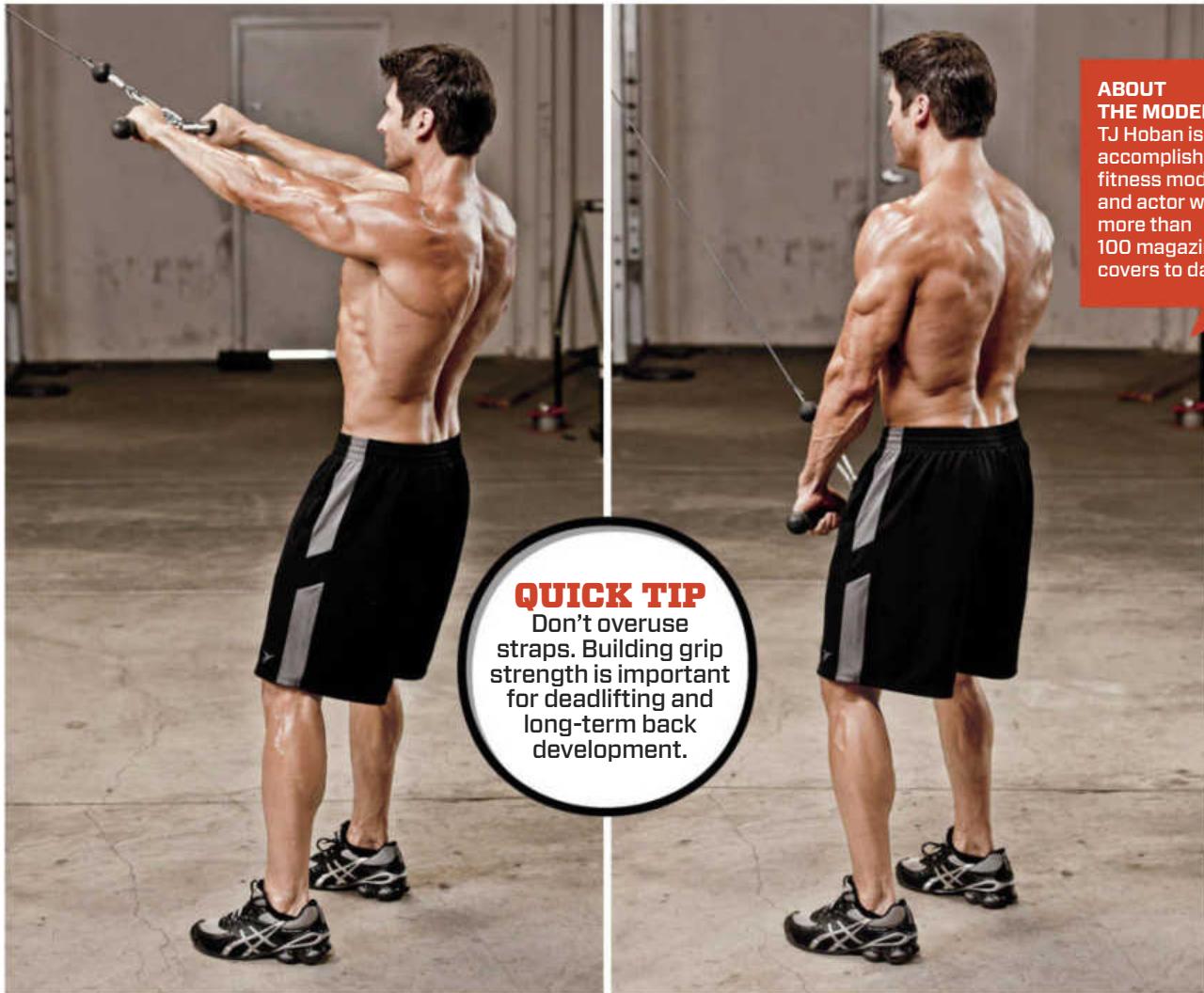


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Backing Out

Eric W. sent us his back workout and said he's not getting stronger. Here's how we fixed it. **BY SEAN HYSON, C.S.C.S.**



ABOUT THE MODEL
TJ Hoban is an accomplished fitness model and actor with more than 100 magazine covers to date.

ERIC'S OLD WORKOUT

EXERCISE	SETS	REPS
Pullup	3	8
Close-grip Pullup	2	6
Bentover Row	3	10
One-arm Dumbbell Row	3	12

M&F RATING: C

OUR ADVICE

All your exercises require a lot from your grip, so by the time you're halfway through the workout, your hands and forearms are too worn out to handle heavy weight. Using straps will allow you to train heavy and save your grip. You should also experiment with straight-arm lat pulldowns as a finisher. These work like pullups but don't require any grip strength.

ERIC'S NEW WORKOUT

EXERCISE	SETS	REPS
Bentover Row*	3	6
Dumbbell Row	3	10
Close-grip Pulldown*	3	10
▲ Straight-arm Lat Pulldown	3	12

*Use lifting straps.

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Walk Hard

The asymmetrical farmer's walk builds the core and the grip.

BY SEAN HYSON, C.S.C.S.

ABOUT THE MODEL

Brandon Bass gave up baseball to pursue bodybuilding. He competed in his first show at just 18 years old.

HOW TO DO IT FARMER'S WALK

1 Place one heavy dumbbell and one lighter one on the floor. Bend your hips back and grip the dumbbells. Carefully deadlift them off the floor so you're standing tall.

2 Walk as quickly as you can as far as you can while keeping your torso upright and braced. Switch the dumbbells on the next set so the opposite side gets worked with the heavier weight.

DID YOU KNOW?

Holding uneven dumbbells forces your core to fight the tendency to tip over or twist to one side. As with any farmer's walk, you're also training your grip as well as your lower body and your heart.



QUICK TIP

Choose dumbbells that aren't too different in weight. There shouldn't be more than a 20-pound discrepancy between them.

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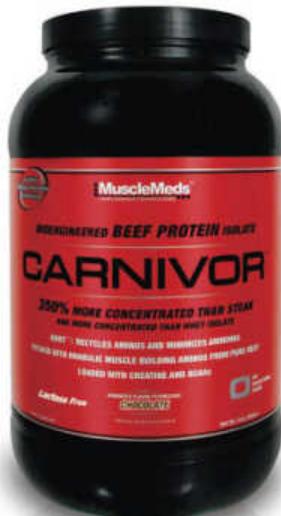
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The study also showed that CARNIVOR BPI supplementation significantly increased lifting strength. Test subjects increased their average bench press strength by over 45 lbs. and added more than 90 lbs. to their deadlift over baseline.* These impressive clinical findings clearly validate the muscle and strength building power of CARNIVOR Beef Protein Isolate.



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*Sharp, et al., 2015 ISSN International Conference [Poster]. Muscle mass data based on male subjects. Lean body mass gains compared to baseline. Based on 2 scoops (46 grams protein) daily. Female subjects also experienced an increase in lean body mass.

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King Crab

Your fat stores aren't going to like this intense combination of exercises—starting with ab- and pec-shredding crab walks.

WHAT IT IS

A 15-minute four-exercise total-body circuit from L.A.-based celebrity trainer Andy McDermott. You start with 10 reps of crab walks (five in each direction), then go into walking lunges, handstands, and a stair run. If you don't have access to a stairwell, you can hit an incline treadmill or jump rope.

WHY IT WORKS

McDermott's body-weight circuits usually alternate upper- and lower-body movements, then send you on a run, but the intensity of lunges and handstands (or handstand pushups, for the advanced) are amplified to a huge degree by the crab walks. "Your core is taxed the whole time," McDermott says.

THE WORKOUT

Set a timer for 15 minutes and do the following circuit nonstop. Record your rounds completed.

EXERCISE	REPS
Crab Walk Pushup	10
Walking Lunge	30
Handstand/Handstand Pushup*	10/5*
Stair Run	60 sec.

*Beginners should hold a handstand (with your feet resting against a wall) for 10 seconds. For the advanced lifter, do five handstand pushups.

CRAB WALK

Start with hands apart, feet together, then "walk" to the right, hands together, feet apart. Continue for five reps, then do five reps in the other direction.

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When to Shut It Down

BRAD DAVIDSON, the author of *The Stark Naked 21-Day Metabolic Reset*, says that sometimes the best way to bust a plateau is to take time away from the gym. **AS TOLD TO JEFF TOMKO**

NOW IS THE time to look in the mirror and do a reality check: Am I making progress in the gym? Is my muscle mass growing? Are the things I'm in the gym training for actually happening? If the answer's no, it's time for a reboot. Take a three-week break, fix what's broken—sleep!—then watch your energy and strength soar.

By the time this book comes out in February—just after the holidays—a lot of you will have just jacked up your

liver and blood sugar. You haven't slept, and your hormones will be through the roof—not an environment for muscle growth, balance, and fat loss.

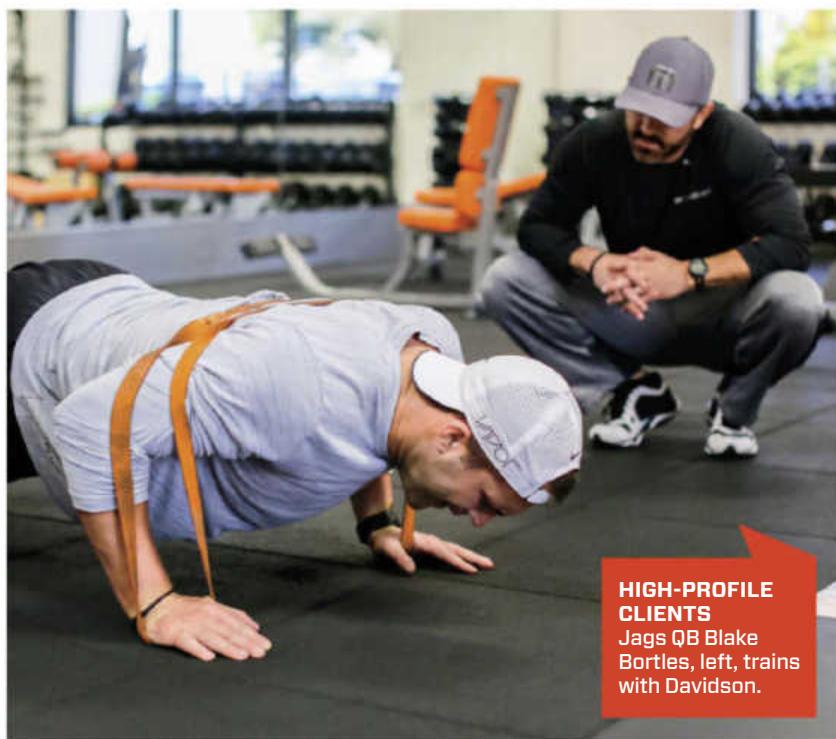
I make anybody we work with do a reset right out of the gate. Athletes get eight to 16 weeks to rest and prepare when their season ends. We live in a marathon of sprints. We don't get that.

This program works best when you're not getting anywhere in the gym or no longer motivated to work out. Yes, it's

hard to persuade people to take a break. But instead of feeling guilty, make this the time to pamper yourself. I'll make my athletes take a walk every day. Get a massage. Meditate. Do yoga.

I train athletes, CEOs, Navy SEALs, very high achievers. I deal a lot with people who overexercise. Quarterback Blake Bortles came to me after his first season. His arm was tired, and his fat became elevated. He knew he had to fix something. He returned this year looking incredible. I helped PGA pro Brendan Steele put on 35 pounds of muscle and add more than 20 yards to his drive.

And let's not overlook this important benefit of a metabolism reset: Your sex drive will be optimized—it's one of the stinkin' reasons we go to the gym! You should want to have more sex! When the body's healthy and the metabolism's healthy, the only thing it wants more than sex is to survive. So if you're not out runnin' for your life, then you should be thinking about having sex as if you were an 18-year-old.



HIGH-PROFILE CLIENTS
Jags QB Blake Bortles, left, trains with Davidson.

DAVIDSON'S TOP TIPS FOR A SUCCESSFUL RESET

1 **The most beneficial** place to start is to begin bringing down coffee intake and get plenty of sleep. Also eliminate alcohol and sugar from your diet.

2 **Support your liver** by drinking warm lemon water first thing in the morning.

3 **Save your carbs** till dinner. This will promote fat burning throughout the day.

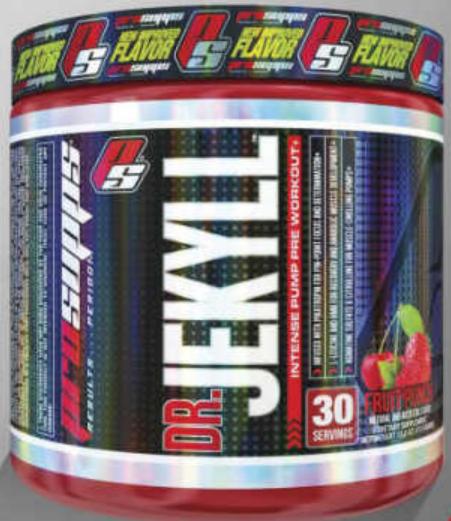
4 **Proactively reduce your stress.** Yes, it's easier said than done. Go to bed early, even try meditating.

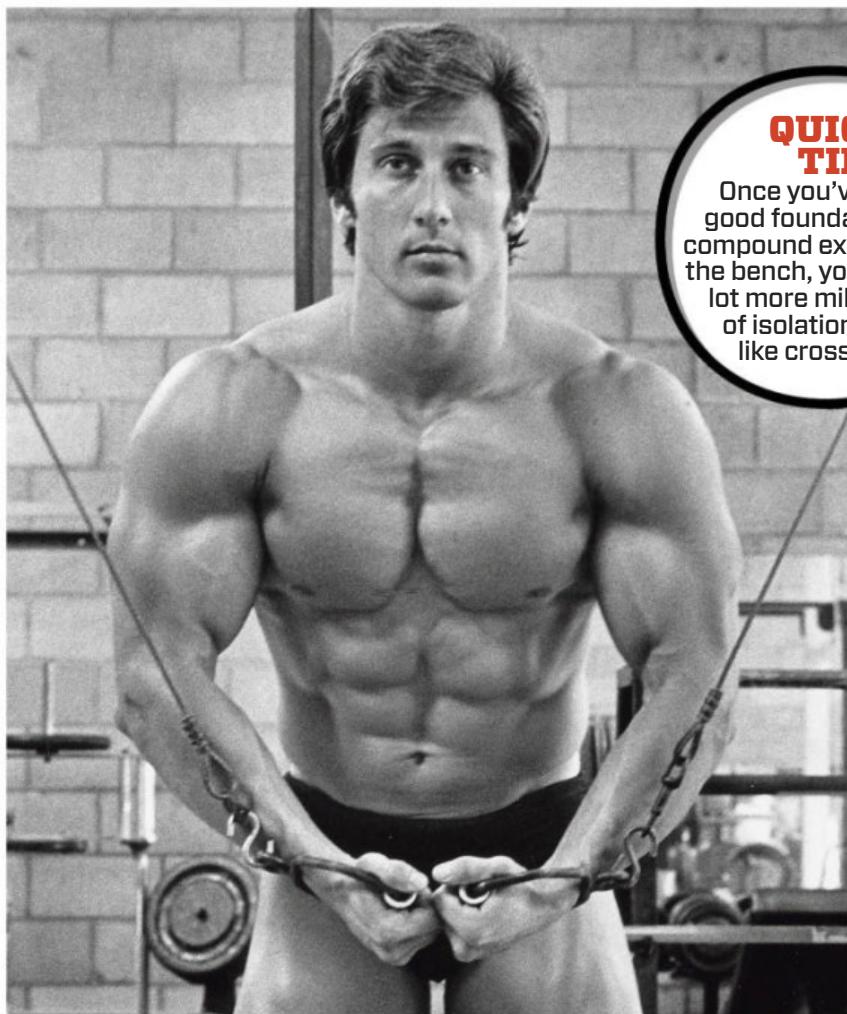
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**QUICK
TIP**

Once you've built a good foundation with compound exercises like the bench, you can get a lot more mileage out of isolation moves like crossovers.

work your pecs with the right exercises on a regular basis. This is the situation I'm in, and pec work has become a major part of my upper-body workout—all in defiance of developing boobs. I've seen some of my contemporaries with this condition, and it isn't pretty. That's not for me. Here's what I do. I've found a bunch of exercises I can do on machines that don't hurt my shoulders: the pec deck, dip machine, and incline press on a machine or, more recently, barbell incline press. I'm training my pecs once a week, and it's working because I'm keeping my body weight light. It would be even more productive to work them twice a week, but with the archery I do, it's enough for my shoulders and it's effective.

My first exercise is the incline press. A better way to isolate upper pecs is using dumbbells for the incline press holding a neutral grip. This permits lower stretching and really targets the pecs. Pec deck is next for me, and I have a good one that gets both my inner and outer pecs since I have it loaded with rubber bands, increasing tension at the end of the movement. It's a V-1 machine, and it's banded on its weight stack, making the use of really heavy weights unnecessary. It's also easier on the joints and gives a better pump. On all these exercises I keep the reps in the six to 12 range, working up in weight and down in reps for three sets.

If you don't have access to a good pec deck, then dumbbell flies on a slight decline are best. It may be better than the pec deck if you do it right, stretching deep down each rep.

Parallel dips on a dip machine are also great. This machine is pin-loaded, giving great resistance as the cable stretches. I do higher reps here and might do 15, 12, 10 reps as I increase weight.

Try supersetting these or working them as a circuit. You'll keep great shape in your chest and never have to worry about man boobs.

Older, Wiser

As you age, ditching the bench press isn't such a bad idea. **BY FRANK ZANE, M.S.**

IT'S NOT ABOUT how much you can bench as you get older. Yes, the bench press is good for building pec, delt, and triceps mass in the early stages of one's development, but its usefulness doesn't last. And it's actually a good idea not to get your pecs too big, especially the lower pecs. Why?

With aging, muscles invariably shrink, and bigger muscle masses can shrink more, leaving behind tissues that do not shrink as much

as the skin. Any part of the body that gets too big and then shrinks will leave loose skin in its wake. Not only that, but the skin itself changes with age. It literally becomes thinner, revealing all sorts of minor imperfections that you might have gotten away with as a younger man. The problem is obviously compounded by shrinking muscles.

So what to do? Don't strive for massive pecs in the first place. What if you already did? Then you have to



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TRAIN OVER 40

DO THE WORK
“I knew if I wanted rock-hard abs, I needed to do more than minimal training.”



BRIM'S STATS

HEIGHT: 5'11"

WEIGHT: 175 lbs

AGE: 49

RESIDENCE:
San Antonio, TX

WEBSITE:
drbconsult.com

Fit for Life

Army veteran, former Olympian, and business consultant **RICKY BRIM** trains for both aesthetics and job performance. **BY MARK BARROSO**

A RETIRED ARMY SERGEANT
major who served 21 years, Ricky Brim provides services such as team-building, leadership, and customer-assistance strategies to various organizations as a business consultant. The military was Brim's bridge to fitness and professional success.

“I joined the Army after I broke my femur, and my track scholarship got messed up,” Brim says. “My older sister was in the military at the time.”

While in the Army, Brim competed in the 400-meter sprint at the 2000 Olympic Games; his best-ever time in the event was 45.9 seconds.

Nowadays, Brim trains six times a week, including two days for abs, and runs a fast three to four miles four times per week.

“I train as a bodybuilder, and I’m working on getting to 200 pounds in the long term,” Brim says. “I want my workout style to match my look.”

After reaching a training plateau, Brim swaps exercises and increases intensity by upping the load or reps. Surprisingly, he says his biggest obstacle to success was fear.

“Once I overcame the fear of getting injured, I achieved my goals,” he says.

BRIM'S ABS WORKOUT

EXERCISE	SETS	REPS	REST
Decline Situp	5	35-40	60 sec.
Ab Knee-ins	10	35-40	45 sec.
Russian Twist*	5	15-20	45 sec.
Stationary Bike Cycling	1	45 min.	–
Jump Rope	5	2 min.	60 sec.

*Hold 10- to 25-pound medicine ball or weight.

BRIM'S TOP 3 ABS TRAINING TIPS

AVOID CRAMPS

“I drink two gallons of water a day. I used to get cramps in my abs, but when I started drinking more water, the cramps subsided.”

GET LOOSE

“Stretch the abs 10 to 15 minutes before abs training to avoid injury. I do a cobra pose, hang from a bar, and do side bends.”

GO FOR TWO

“Don’t train abs more than twice a week, because your lower back may become more injury-prone.”



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QUICK TIP

The warmup may fatigue you so that you can't train as heavy during your session.

That's OK—it's a sign you need to improve your work capacity.

ABOUT THE MODEL
Brandon Bass is a competitive bodybuilder and personal trainer in New York City.

Press Pain-Free

Use this warmup for smoother chest and shoulder workouts. **BY JIM SMITH, CPPS**



HOW TO DO IT SHOULDER MOBILITY ROUTINE

PERFORM THE EXERCISES

as a circuit, completing one set of each in sequence without rest in between. Afterward, rest 30 seconds and repeat for six to eight total circuits. Each time through, change your hand position slightly on the press, shrug, and pushup. For

example, start with a shoulder-width grip on all three, then move it out an inch on subsequent sets.

Set up spotter bars in a power rack so that after you shrug you can place the bar on the rack at waist height and do your pushups on the bar from there.

QUICK TIP

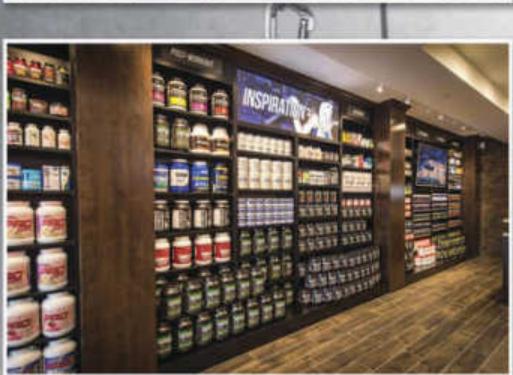
Performing lighter versions of the lifts you'll do in your workout, or for very low reps so they're not taxing, prepares the muscles and joints for the ranges of motion you'll use in the workout as specifically as possible.

THE WARMUP

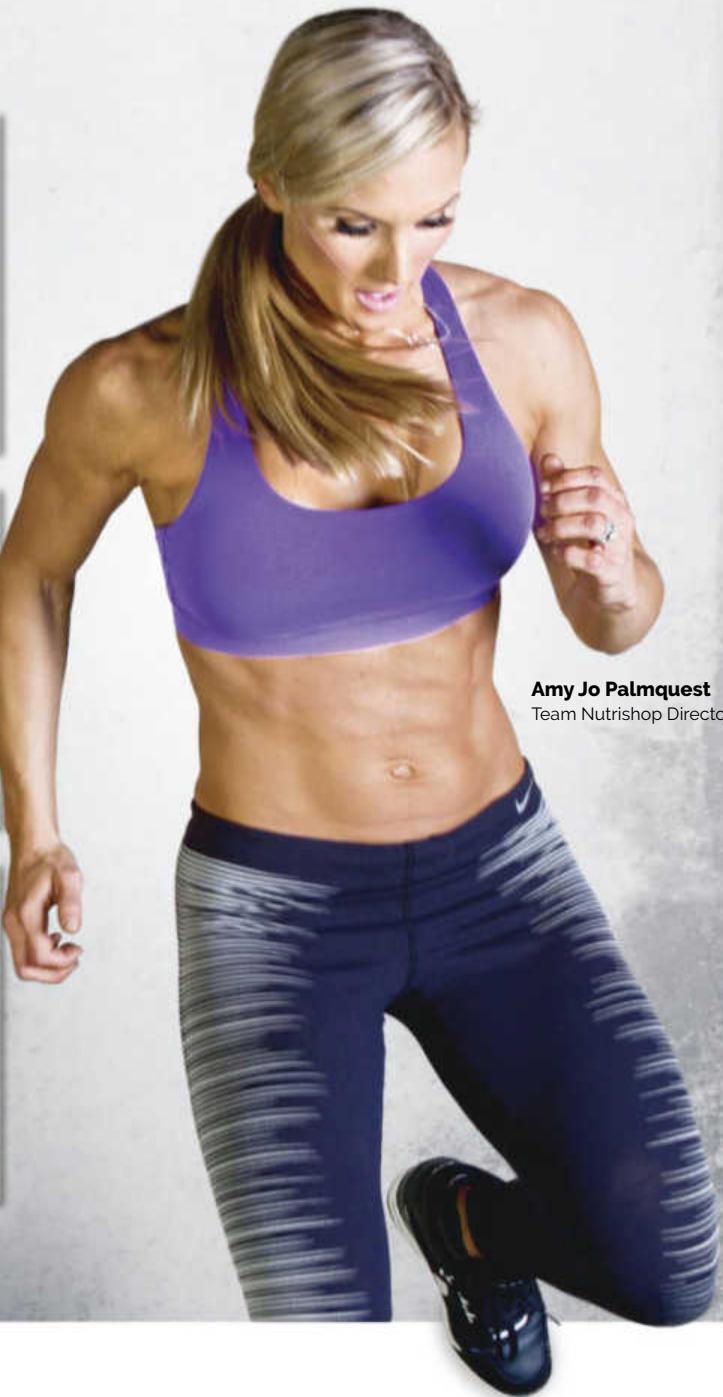
EXERCISE	REPS
Close-grip Pullup	3
Shoulder-width Pullup	3
Wide-grip Pullup	3
Overhead Press w/Shrug*	5
Barbell Shrug	5
Barbell Pushup**	5

*Press the bar overhead, then shrug your traps at the top.

**Place your hands on the barbell and perform pushups on it, using the bar for support.



Eric Nelson Photography



Amy Jo Palmquest
Team NutriShop Director

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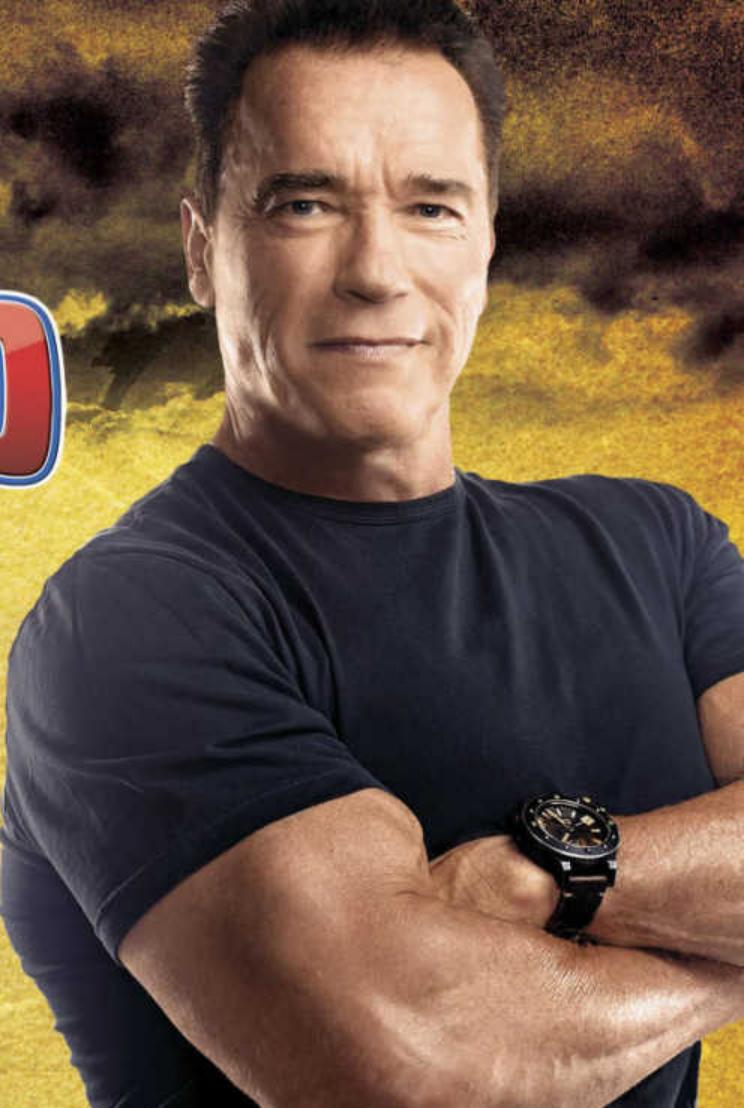
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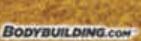
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DIET 911

Everything you need to know about the revolutionary Nordic diet, p84.

ROBERT IRVINE

The chef serves up a high-protein, high-fiber sea-scallop dish, p90.

EAT

WHAT'S IN THE FRIDGE THIS MONTH

PAIR THE PASTE

Guava paste and farmer's or mozzarella cheese pair well as a starter or as fillings for empanadas.

C Horse

Guava contains five times the scurvy-fighting vitamin that oranges do. **BY JOY RONSON**

A PEAR-SHAPED FRUIT with a light green or maroon skin, guava is as commonly eaten in Asia as the apple is here. Native to tropical Central America, guava trees can attain a height of 30 feet. The fruit offers a unique, sweet taste while also fighting disease and improving your physique.

A single guava fruit provides more than six times the vitamin C that a man needs in a day. Guava is lower

in sugar and higher in fiber than apples and bananas, and extract from its leaves is used to treat diabetes. A 2010 study in *Nutrition & Metabolism* found that it keeps blood sugar down. Best of all, unlike most other produce, guava has a heightened natural resiliency against insects, so excessive pesticides aren't required to grow and harvest it. That means you can snack on it safely without fear of

ingesting heavy chemicals.

Pick up guava in your supermarket or health-food store and eat it raw, or look for it in juice or jam form. Guava is so potent that even when it's processed into juice or jam or consumed long after its harvest date, it retains much of its power. A study in *Plant Foods for Human Nutrition* found that guava juice still satisfied the RDA for vitamin C after time in storage.





Eat Like a Viking

Eat clean and help the environment with the Nordic diet. **BY MARK BARROSO**

IN 2009, Danish researchers created the New Nordic Diet (NND) to improve the health, well-being, and development of Danish children. European nutrition experts created the NND to foster greater consumption of plants and food found in seas, lakes, and the wild and to encourage reduced consumption of meat.

"The diet consists of fruits and vegetables (especially berries, root vegetables, cabbage, and legumes), potatoes, herbs, plants, mushrooms, nuts, whole grains, meats, fish, shellfish, and seaweed," says Thomas Larsen, Ph.D., associate professor in the department of

nutrition in obesity research at the University of Copenhagen.

"The NND recipes were selected because their ingredients can be produced in the Nordic region with minimal impact on the environment," he adds.

A recent American Society for Nutrition study of 147 overweight Danes found that those who followed the NND for 26 weeks lost approximately 10 pounds compared with participants who followed a traditional Danish diet, who typically lost only three pounds. NND

NORDIC VEGGIE "MEATBALLS"

MAKES 4 SERVINGS

1 cup finely grated carrots
1 cup finely grated potatoes
1 cup finely grated zucchini
1 green onion, finely chopped
½ bunch flat-leaf parsley, chopped
1 tsp ground fennel seeds
1 tsp ground cumin
½ cup wheat flour
½ cup milk
2 eggs, beaten
½ cup oatmeal
Salt and pepper, to taste
1 tbsp rapeseed oil

1. Preheat oven to 300°F.
2. In a large bowl, mix thoroughly all ingredients except oil.
3. Heat oil in a pan over medium-high heat. Fry a small sample of meatball mixture to test. If the mixture is too wet and does not stick together, add a little more oatmeal.
4. Form mixture into meatballs and fry them until golden brown. Transfer to a shallow baking dish and bake for 15 minutes.

NUTRITION PER SERVING

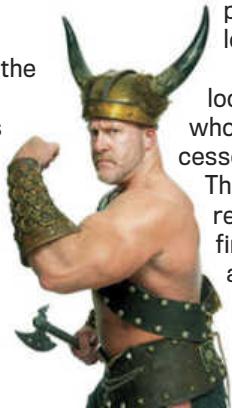
248 CALORIES	9g PROTEIN	37g CARBS	8g FAT
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dieters also reduced their blood pressure to a greater extent than those dieters who followed the average Danish diet.

The macronutrient profile for the new diet is "roughly 18% protein, 30% fat, and 52% carbohydrates," says Larsen. "There's no specific calorie restriction. It should be as

satisfying and satiating as possible, indirectly leading to lower caloric intake."

To join the Nordic cause, eat locally grown produce and whole grains instead of processed meats and sugary foods. The flavorful veggie-meatball recipe above was one of the first NND offerings. Cook it up and dine the Nordic way.



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Perfect Pear

Why you should make this fibrous and nutrient-rich fruit a staple of your diet.

BY CHEF VIKKI KRINSKY



"A PEAR A DAY keeps the doctor away" doesn't quite have the same ring as "an apple a day," but the saying is definitely true for pears.

Fresh pears are excellent sources of dietary fiber. There are six grams in a medium pear, in addition to 212 grams of potassium. Pears actually have more pectin, a water-soluble fiber that has been shown to lower cholesterol, than apples. Pears offer the same satisfying crunch as an apple yet deliver a juicy flavor bomb associated with peaches or plums.

DID YOU KNOW?

A *Journal of Nutrition & Food Sciences* study found that on average, adults who eat fresh pears weigh about eight pounds less and are **35% less likely to be obese** compared with those who don't consume pears.

To judge a pear's ripeness, apply gentle pressure with your thumb to the "neck" or stem. You want to feel for a firm texture. Don't peel the skin before eating, since that'll decrease phenolic content, making it less of an antioxidant. Freezing fresh pears is not ideal, as the fibers will separate in the thawing process, leaving a mushy, grainy texture. However, freezing cooked pears in a tightly sealed container or an airtight plastic bag works great.

Cooking pears brings out a mellow sweetness and silky texture that's undeniably delicious. In this quick and healthy recipe, I pair the pear with a mint-cashew cream that will blow you away.

SPICED PEAR AND CASHEW CREAM

SERVES 4

1 tsp coconut oil
 ½ tsp cinnamon
 Shake of nutmeg
 2 large Bartlett pears, diced into bite-size pieces
 1½ cups water
 1 cup raw cashews
 4 pitted dates (more if you want the dish to be sweeter)
 1 tsp vanilla powder or extract
 1 tbsp flax oil
 1 tbsp chia seeds
 4 mint sprigs

1. Heat coconut oil in a pan on medium-high heat. Add cinnamon, nutmeg, and pears and sauté for a few minutes until brown. Turn heat to medium-low and add ½ cup water.
2. Cook pears until al dente, then turn off heat and set aside.
3. Blend cashews, dates, vanilla, flax oil, and remaining 1 cup water in a small blender until smooth.
4. To serve, drop a large spoonful of cashew cream on each plate, top with pears, sprinkle with chia seeds, and garnish with a mint sprig.



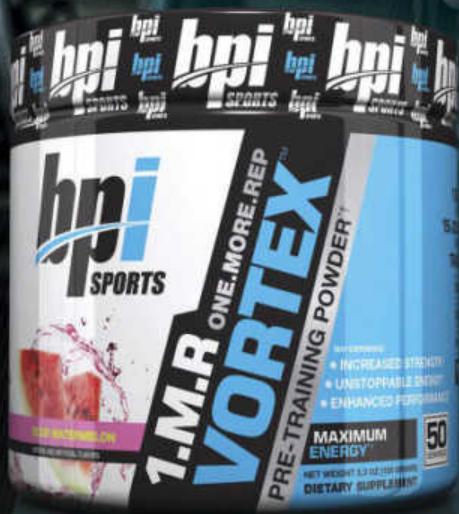
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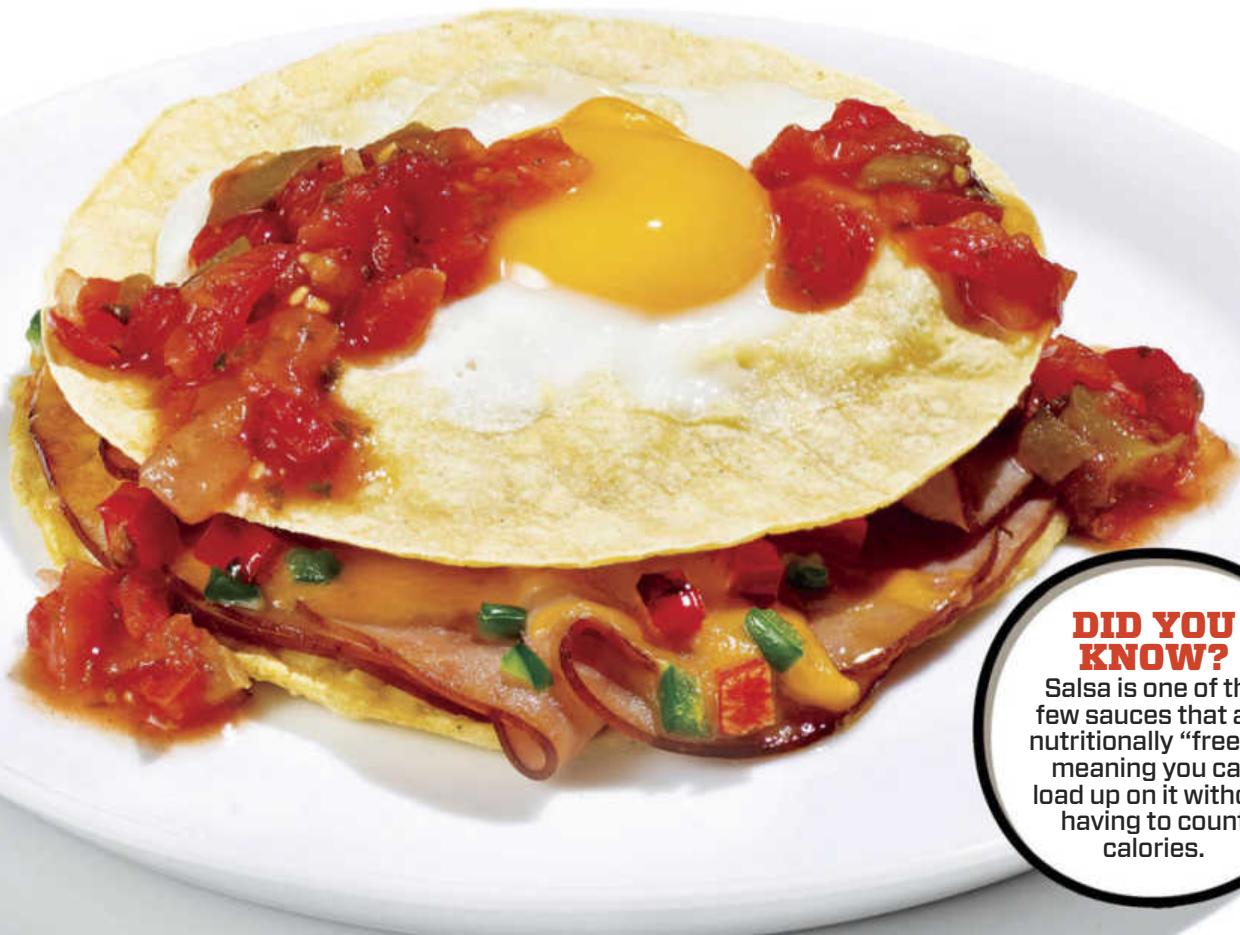


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† When combined with a proper exercise and nutrition regimen. Statements based on early-stage independent 3rd party in vivo and / or in vitro model scientific research data findings for individual ingredients.

**DID YOU KNOW?**

Salsa is one of the few sauces that are nutritionally “free”—meaning you can load up on it without having to count calories.

Muscle Quesadillas

Use this lower-fat, mucho higher-protein upgrade on your favorite Mexican appetizer at your next fiesta. **BY SEAN HYSON, C.S.C.S.**

THE CLASSIC MEXICAN

restaurant quesadilla is hard to refuse when you’re facing it on a menu, but it’s a piñata’s worth of fat and calories. You’re better off throwing your own fiesta at home with your own quesadillas, which, when prepared shrewdly, can serve as a great breakfast or snack with less fat and more

protein. Here, we’ve cut back on the cheese (but not the flavor) and added ham-flavored turkey and eggs for more protein, along with fresh vegetables to pump up the fiber and slow down the digestion of the tortillas, helping you maintain more-even insulin levels and, as a result, more-steady energy the rest of the day.

EGG & HAM TORTILLAS**MAKES 1 SERVING**

- 4 small corn tortillas
- 4 oz turkey ham
- ¼ red bell pepper, chopped
- ½ jalapeño pepper, seeded and chopped
- 2 tbsp shredded reduced-fat cheddar cheese
- 2 large eggs
- Salsa

1. Preheat oven to 400°F. Lightly coat a baking sheet with cooking spray and lay 2 tortillas down.

2. Top tortillas with ham, peppers, cheese, and remaining tortillas. Carefully crack an egg over the top of each. Bake 10 to 12 minutes. Serve topped with salsa.

NUTRITION PER SERVING

508 CALORIES	42g PROTEIN	50g CARBS	18g FAT
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Seared Sea Scallops

Lean protein, high fiber, and enough complexity to satisfy any palate.

THE RECIPE

MAKES 4 SERVINGS

FOR THE ENGLISH SWEET PEA PUREE:

1½ cups sweet peas, blanched
1 cup chicken stock, cold
1½ tbsp honey
Salt and white pepper, to taste

FOR THE WHITE BEAN SOFRITO:

6 shallots, minced
¼ cup extra-virgin olive oil
2 red bell peppers, diced small
1 cup white wine
2 cups white beans, cooked
¼ cup fresh lemon juice
Splash chicken stock
1½ tsp salted butter

FOR THE SEA SCALLOPS:

2 tbsp grape-seed oil
16 large dry sea scallops

1. ENGLISH SWEET PEA PUREE:

Place sweet peas in a blender. Blend slowly and add chicken stock and honey. Blend faster and add salt and white pepper. Continue until very smooth.

2. WHITE BEAN SOFRITO:

In a sauté pan over medium heat, sweat the shallots in olive oil, then add peppers. Cook for 1 minute, then deglaze with white wine. Add beans, lemon juice, chicken stock, and butter.

3. SEA SCALLOPS:

In a large sauté pan over medium-high heat, add grape-seed oil. Once hot, add scallops; cook for 2-3 minutes on each side, until golden brown. Plate with sofrito and sweet pea puree.

QUICK TIP

Choose U-10 sea scallops. U-10 is short for "under 10." As in, it would take fewer than 10 of these to make a pound.

FOOD STYLING BY SUZANNE LENZER

NUTRITION PER SERVING

568 CALORIES	38g PROTEIN	43g CARBS	24g FAT
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Mushrooms

Enjoy this mineral-rich fungus using these five simple and healthy recipes. **BY DEBI ZVI, R.D.N., C.D.E.**

1 MAKE MUSHROOM-LENTIL BURGERS

Combine $\frac{1}{2}$ cup sautéed diced onions, $1\frac{1}{2}$ cups sautéed chopped button mushrooms, $1\frac{1}{2}$ cups cooked green lentils, $\frac{3}{4}$ cup cooked quinoa, $\frac{1}{4}$ cup walnut meal, and salt and pepper to taste. Refrigerate for 15 minutes. Form 10 patties and place on baking trays. Preheat oven to 375°F and bake for 45 minutes, flipping after 25 minutes.

2 SERVE A MUSHROOM EGG BAKE

Broil 4 portobello mushroom caps on high for 5 minutes. Switch oven to bake at 400°F. Crack an egg in each mushroom cap and sprinkle with low-fat cheese. Bake for 15 minutes, or until egg whites are cooked. Garnish with parsley.

3 TOAST A MUSHROOM CROSTINI

Sauté 8 oz sliced shiitake mushrooms and 2 cloves minced garlic. Toast 8 baguette slices. Spread goat cheese on toast. Top with sautéed mushrooms; garnish with parsley.

4 WHIP UP A MUSHROOM SAUTÉ

Slice a spaghetti squash in half lengthwise, deseed, and roast at 400°F for 45 minutes. Brown 2 links of sliced low-fat turkey sausage in a pan, remove, and sauté 2 cups sliced button mushrooms with 1 tbsp thyme. Divide equally and top squash with cooked mushroom and sausage.

5 TOSS A MUSHROOM SALAD

Combine $\frac{1}{4}$ cup each of chopped mushrooms, cucumbers, tomatoes, and avocados, $\frac{1}{4}$ cup sprouted lentils, and 1 tbsp chopped scallion. Dress with 1 tbsp lemon vinaigrette.

MAGIC 'SHROOMS

Portobello mushrooms are a good source of potassium, phosphorus, magnesium, copper, and selenium.



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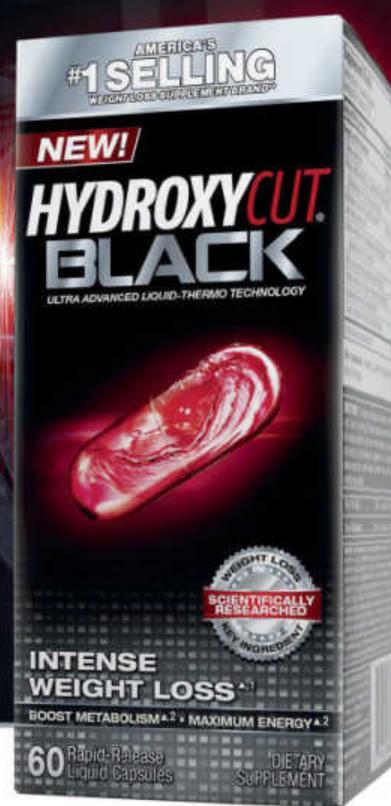
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The Iron Shake

A man looking to drop fat needs a meal-replacement with muscle.

BY JOY RONSON

WHEN WOMEN WANT TO LOSE WEIGHT, they drink those dainty liquids that come in a pink can. Men are supposed to whip up a protein shake and down it in one gulp. But the meal-replacement supplement market is changing, and one brand—SlimFast—may have the best option yet for men who want to shed their gut (and keep it off). And, fortunately, it doesn't come in pink.

MEAL-REPLACEMENT

drinks used to be simply this: a low-calorie protein or fiber-rich beverage that filled you up to prevent overeating—in effect “replacing” a whole-food meal when you don’t have time to prepare one. SlimFast’s new Advanced Nutrition line is different. First off, it’s designed specifically for men, so it doesn’t just focus on weight loss but also long-term weight management. Its 20 grams of protein (in the form of calcium caseinate) is perfect for building muscle, as well as speeding recovery. At the same time, the drinks contain an equal amount of fiber (5 grams) and calories (180) as your girlfriend’s version. It packs only 1 gram of sugar, and it’s gluten- and lactose-free.

SlimFast is even macho enough for use in the U.S. Army. A study published in the *Journal of the American Dietetic Association* looked at soldiers who needed to lose weight to remain in the service. One group followed the Army’s own weight-management program by itself, and the other used the program along with meal-replacement supps. The result? Fewer subjects dropped out in the supplement group, and they lost more weight—and specifically more body fat—than those who followed the Army guidelines alone.

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BRUCE LEE

How do you take what Bruce Lee was—a perfectly efficient combination of power and athleticism—and improve upon it? We take off the rose-colored glasses and imagine how much different Bruce Lee's training would be today—and dare to imagine that he could have been even greater.

BY MARTIN ROONEY, M.H.S., P.T., C.S.C.S. // PHOTOGRAPHS BY EDGAR ARTIGA

How do you improve on perfection? It's a question whose answer would seem self-evident, a rhetorical query designed to deter the hubris of anyone who would needlessly try to fix something that isn't broken.

It's easy to understand why so many people consider Bruce Lee perfect. Although he left us prematurely more than 40 years ago, there are few people today not familiar with the martial arts icon. Through his movies, his martial arts innovations—he developed Jeet Kune Do—or his physique, Lee's legacy has continued to positively affect and inspire people around the world since his passing in 1973 at the age of 32.

In short: Lee is a legend, and I understand no one wants to see a legend change. But I want to make the argument that Lee would train quite differently today. Before I developed my system, Training for Warriors (TFW), I was certified in Jeet Kune Do and studied Lee's training methods extensively. I am convinced that as a result of the combination of current training methods and his progressive philosophy, he would have been even better today.

Training methods, like technology, have come a long way since 1973. For a quick example, in '73, IBM developed one of the first personal computer prototypes called the SCAMP. It was revolutionary then, but the phone in your pocket today

possesses about a million times the SCAMP's meager processing power.

In '73, the undefeated Miami Dolphins won the Super Bowl, but if today's Dolphins are training anything like Don Shula's team, it might explain the franchise's struggles.

These examples are offered to prove that over the past 40 years, science and technology have improved exponentially. Don't you think the consummate student, Bruce Lee, would do the same if he were at his peak today? I do. But in order to do this, he would need to take a long hard look at every aspect of what he did in and out of the gym and then rebuild a program from the ground up.

In the following pages, we will do just that.

BRUCE LEE'S NEW TRAINING PROGRAM

TRAINING OVERVIEW

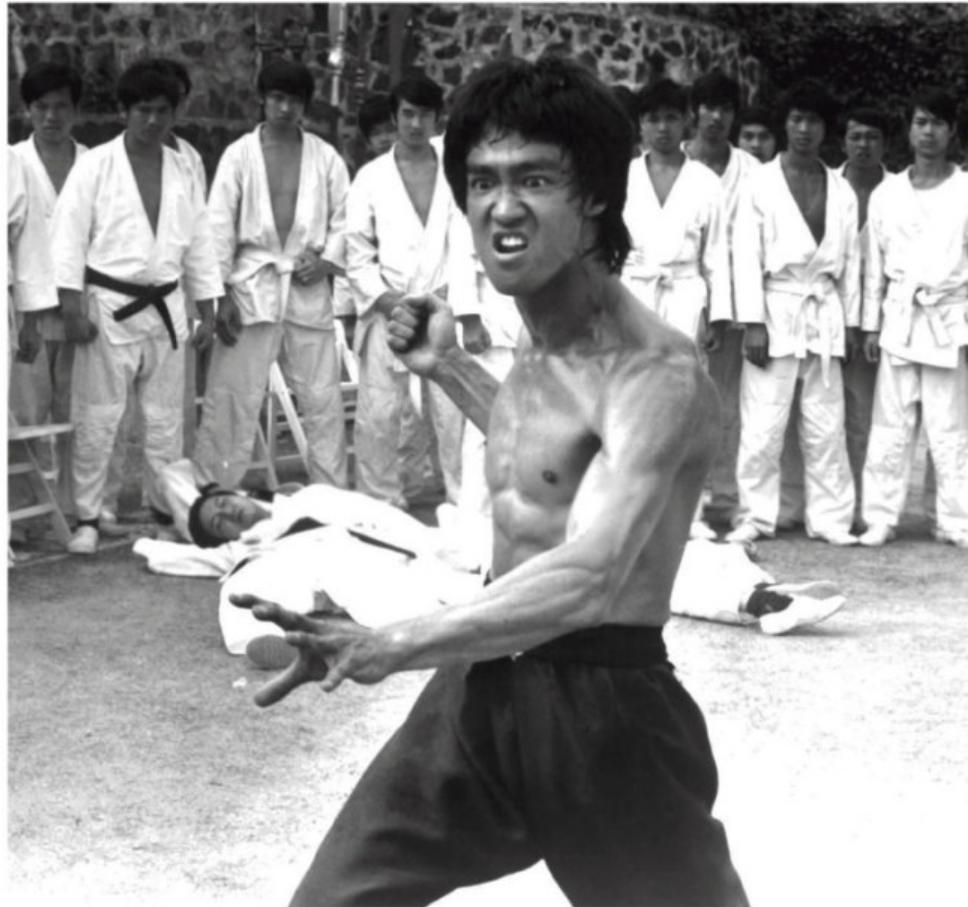
Bruce Lee learned through combat that he needed to improve both his strength and conditioning to be a more effective martial artist. Although he used basic concepts like weights for strength, jogging for endurance, and stretching for flexibility, these methods have come a long way since the 1960s and '70s. Today, Lee would not seek "best," but he would continue to seek "better."

Similar to what Lee used, the Training for Warriors system also uses a four-day physical training week. This schedule allows fighters (and weekend warriors) to build strength and cardiovascular endurance while still leaving time for both recovery and martial arts training. In order to accomplish this, the following workouts should be finished in a little over an hour or less.

If Lee were training today, the TFW methods would be perfectly tailored to match his need for strength, conditioning, and recovery.

You have to remember Lee was constantly training for martial arts in addition to his physical training. In accordance with the philosophy of his martial art, Jeet Kune Do (also referred to as the "style of no style"), Lee would surely be involved in more of the martial arts that make up MMA, adopting what works best for today's champs. This would require more time spent on martial arts training in addition to work in the weight room. As a result, you will notice that martial arts are kept separate from his TFW training routine.

The following overview of his new training routine will explain Lee's past program and how and why it was upgraded.

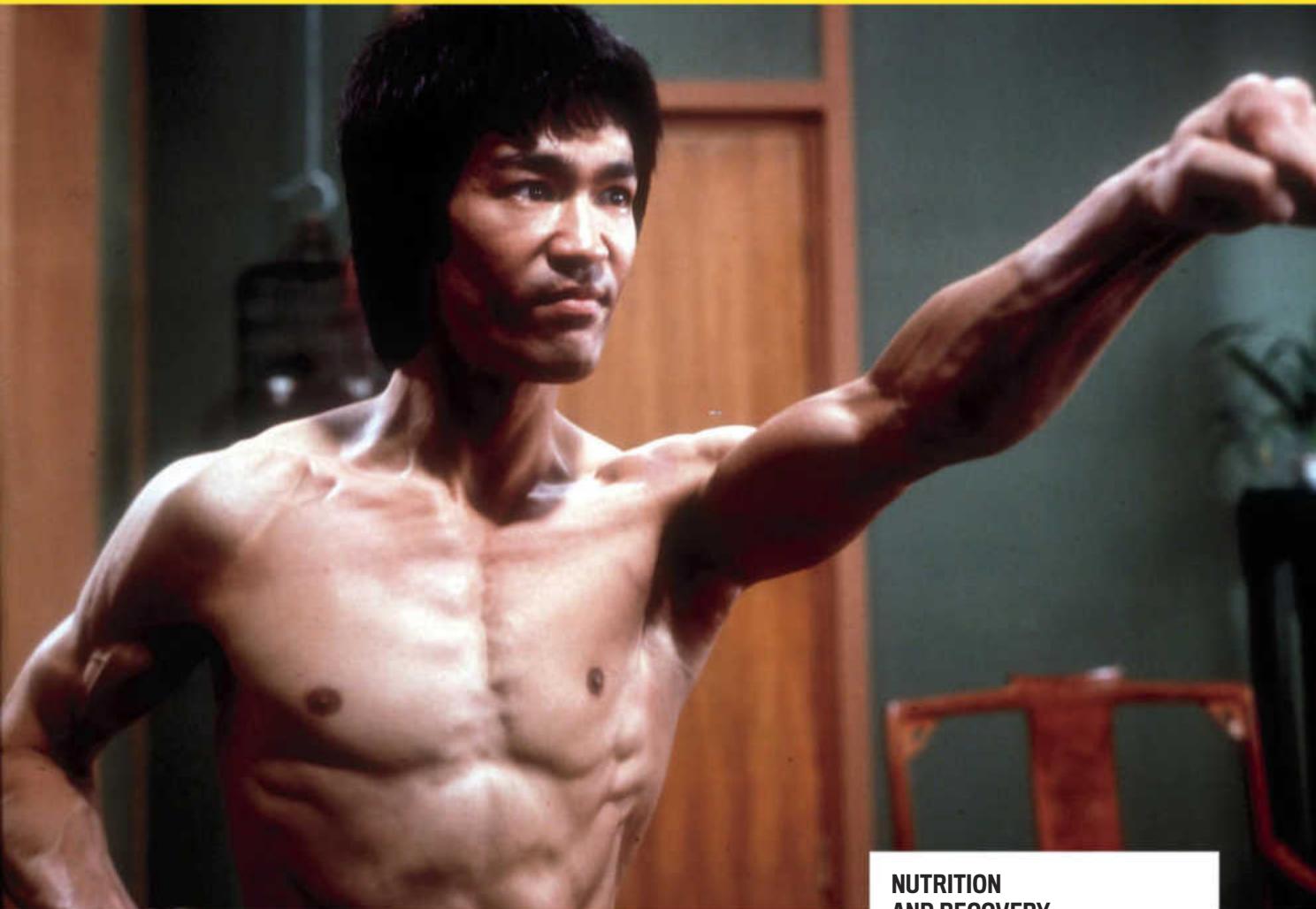


WARMUP

This is one area in which training philosophy has greatly improved over the past five decades. Warming up properly can improve performance and decrease the chance of injury. Lee actually suffered a back injury—which plagued him for years—from performing barbell good mornings after not adequately warming up. Here, we replace his archaic stretch routine with foam rolling, elastic-band work, and a routine of dynamic movements to prepare the muscles, increase heart rate, and stimulate the central nervous system. A full warmup can be found in the TFW text.

STRENGTH TRAINING

Lee was one of the first martial artists to advocate weight training. This broke with the prevailing wisdom of his day that strength training would make you heavy and slow. However, in place of his total-body routines, I've changed the emphasis to one upper- and one lower-body day. Weights used are heavier, and sets and overall volume increase from his two sets of eight to develop more size and strength. Some basic bodybuilding moves he used are upgraded to a more productive fight-specific version. Single-leg lifts are added to improve stability and kicking power.



ENDURANCE

In Lee's day, roadwork and a jump rope were the gold standards in cardiovascular training for combat. Although this can still be a way to challenge the body and help a fighter clear his mind, the repetitive pounding can break an athlete down. In its place, I've used sprints and metabolic circuits designed to increase endurance, maintain strength, and burn fat. These workouts take less time and allow for greater recovery. These circuits also utilize a number of tools that were greatly underutilized in Lee's day, like heavy ropes, an agility ladder, a sandbag, and a slam ball.

CORE

Lee was a big fan of abdominal work, but in his day, most abdominal exercises like situps and crunches were done for extremely high reps. Lee could often be found banging out hundreds of reps of abdominal work. These reps cost time, and presently there are more effective ways to develop core strength. To increase productivity and recovery, the thousands of body-weight reps Lee performed are replaced with more heavily loaded exercises that require both stability and rotation, helping transfer even more power to punches and kicks.

NUTRITION AND RECOVERY

Lee took vitamins and ate clean in order to achieve his legendary physique. Yes, he had great muscle definition, but he also had a body weight that fluctuated between 125 and 145 pounds on a 5'7" frame; the increase in information about nutrition, supplementation, and recovery would have helped him to pack on more muscle and size today. Lee, the student that he was, would surely have stayed on the cutting edge of this information and taken advantage of the improvements. If he had been able to add supps like creatine and hydrolyzed whey protein to his diet and use current recovery methods, Lee could've been even sharper.

BRUCE LEE 2.0: THE WORKOUT

Perform the workouts once per week. (There are four total training days per week, not including any martial arts training.) Follow the program for four to six weeks.

UPPER-BODY TRAINING DAY

DIRECTIONS: Perform on Monday or early in the week to allow for martial arts training. Perform exercises marked **A** and **B** as supersets. Start with a 10- to 15-minute warmup.

EXERCISE	SETS	REPS
1. Barbell Close-grip Bench Press	4	8
2. Mixed-grip Weighted Chinup	4	6
3A. Reverse Incline Dumbbell Flye	3	10
3B. DB Floor Press	3	8
4A. Barbell Power Curl	3	8
4B. Cable Face-pull	3	8

FINISHER CORE CIRCUIT

DIRECTIONS: Perform twice.

EXERCISE	REPS
1. DB Plank Row (or Renegade Row)	8*
2. Med Ball Triangle Crunch	10*
3. Med Ball Twist	50

*Each side.

LOWER-BODY TRAINING DAY

DIRECTIONS: Perform on Friday or late in the week to allow for martial arts training and max recovery. Start with a 10- to 15-minute warmup.

EXERCISE	SETS	REPS
1. TFW Pseudo Sumo Deadlift	5	6
2. Zercher Squat	4	8
3. DB Stepup	3	6*
4. Front Plate Hold Bulgarian Split Squat	3	5*

*Each side.

FINISHER CORE CIRCUIT

DIRECTIONS: Perform three times.

EXERCISE	REPS
1. Barbell Suitcase Deadlift	8*
2. Barbell Rollout	10
3. Barbell Landmine Bus Driver**	16

*Each side.

**Hold the plate like a steering wheel, twist at the top.



MIXED-GRIP WEIGHTED CHINUP

Grab hold of a pullup bar with a mixed grip—one hand over the bar, one hand under it. Retract your shoulder blades to pull up until your chin is over the bar. Lower yourself back to the start position under control. Switch hand positions and perform an equal number of reps in each position.





ZERCHER SQUAT

Unrack a loaded barbell from a power rack, holding the bar in the crook of your elbows. Keep your biceps flexed and hands high. Squat low, driving through your heels to return to the start position.



MED BALL TRIANGLE CRUNCH

Begin on your back holding the ball on your chest and crossing your right ankle over left thigh; keep left leg straight and off the floor. Bring left leg up high and perform a crunch. Switch legs and repeat.

DUMBBELL FLOOR PRESS

Hold a pair of dumbbells and lie on the ground with your elbows bent at 90 degrees, your knees bent, and your feet flat on the ground. Press the weights straight up. When you return to the start position, come to a complete stop.



ABOUT THE AUTHOR

Martin Rooney is a world-renowned coach, author of *Warrior Cardio*, and founder of Training for Warriors. TFW is a physical training system that was born from world and Olympic champions and is now used by thousands of people per day to improve physical strength and mental fortitude. trainingforwarriors.com





SINGLE-LEG MOUNTAIN CLIMBER

From a pushup position, sprint in place with one leg; you're essentially hopping forward and back on one leg, the other leg suspended in the air. Perform an equal number of reps on each side.



PLATE ROTATIONAL LUNGE

Hold the plate out in front of your body, elbows extended. Step and lunge forward. As you lower your back knee to the floor, rotate your upper body toward the direction of the front knee. Return to start position. Repeat on the other side.





METABOLIC TRAINING DAY 1 TFW ENERGY CIRCUIT

DIRECTIONS: Ideally performed on Tuesday and done quickly, leaving energy for martial arts training. Perform three rounds. In Round 1, work for 40 seconds and take 20 seconds' rest. In Round 2, work for 35 seconds and take 30 seconds' rest. In Round 3, work for 30 seconds and take 40 seconds' rest. Rest to get max recovery in between rounds. Start with a 10- to 15-minute general warmup.

EXERCISE

1. Rope Sidewinder
2. KB Bottoms-up One-arm Carry
3. Agility Ladder Drill: Ali Shuffle
4. Plate Rotational Lunge
5. Med Ball Slam



METABOLIC TRAINING DAY 2 TFW HURRICANE

DIRECTIONS: Ideally performed on Thursday. The entire workout should be done in under an hour. A Training for Warriors hurricane is performed for three rounds. Each round contains three sets. Each set uses a combination of one sprint and two exercises. Rest in between each set and get complete rest between each round. Start with a 10- to 15-minute general warmup.

ROUND 1

DIRECTIONS: Repeat three times.

EXERCISE	REPS
1. Sprint	100 yards
2. Sprinter Situp	12
3. Knee-to-elbow Pushup	10



ROUND 2

DIRECTIONS: Repeat three times.

EXERCISE	REPS
1. Sprint	80 yards
2. Single-leg Mountain Climber	8 each leg
3. Judo Pushup (or Yoga Pushup)	10

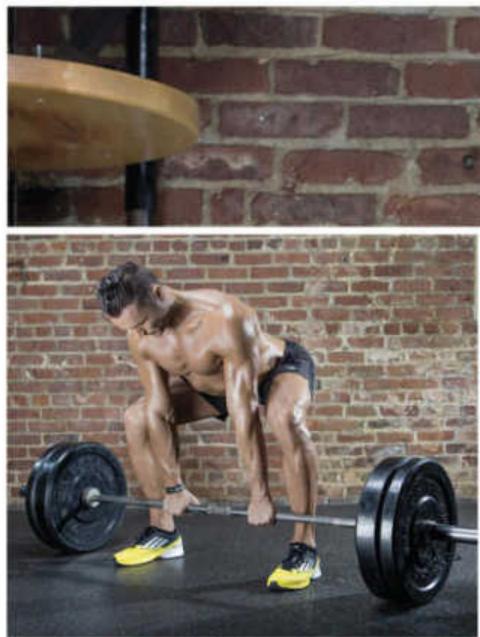
ROUND 3

DIRECTIONS: Repeat three times.

EXERCISE	REPS
1. Sprint	60 yards
2. Abdominal Pike-up	10
3. Burpee	8

SPRINTER SITUP

Begin on your back with your legs straight and elbows bent at 90 degrees at your sides. As you sit up, bring one knee up and the opposite elbow forward while the other elbow fires back. Lower and repeat on the other side.



**NERIJUS
BAGDONAS**
is a trainer
and model in
New York City.
trainp3.com

TFW PSEUDO SUMO DEADLIFT

For this variation, place your feet wider than your shoulders, hinge back, and grip the bar so your arms are inside your knees. Stand up by extending at the hips, knees, and lower back.



ROPE SIDEWINDER

Grab the rope ends in both hands and walk halfway up to the anchor point. Stand in an athletic position and sweep arms side to side, creating as many waves between you and the anchor as you can. Do this as fast as possible. MEP



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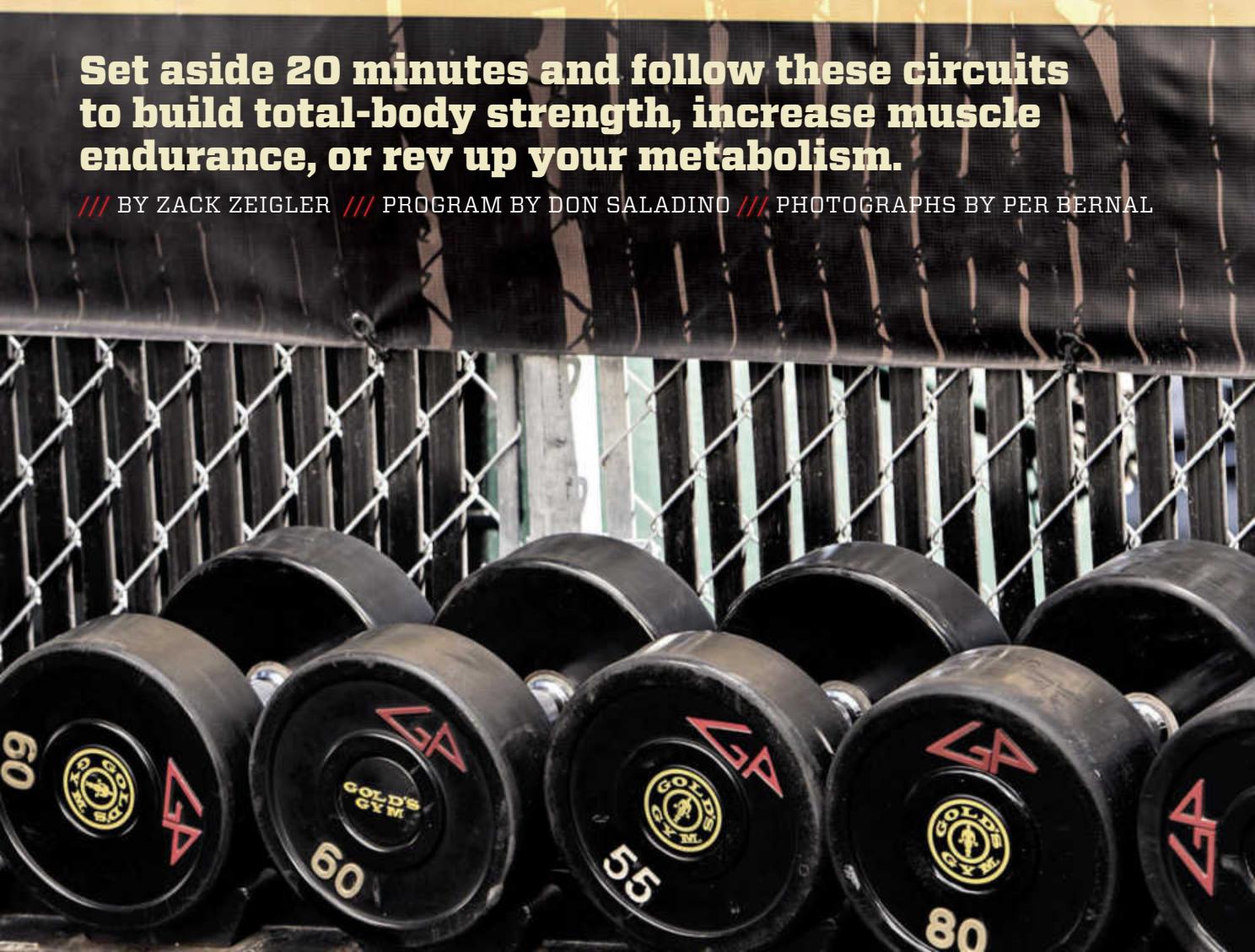
DIEGO SEBASTIAN is a celebrity trainer and model based in Los Angeles. Follow him on Instagram: [@diego4fitness](https://www.instagram.com/diego4fitness)



HORT- CIRCUIT TRAINING

Set aside 20 minutes and follow these circuits to build total-body strength, increase muscle endurance, or rev up your metabolism.

/// BY ZACK ZEIGLER /// PROGRAM BY DON SALADINO /// PHOTOGRAPHS BY PER BERNAL



February's short days, erratic weather, and bitter temperatures can sap motivation—even for dedicated lifters who consider the gym a second home. And with willpower compromised, the idea of climbing under a Slanket and settling in for a Netflix binge can seem far more appealing than battling soul-sucking cold en route to and from the gym. If you've spent the past few months logging marathon workouts on the regular, we say enjoy the additional R & R and the first two seasons of *Daredevil*. Otherwise, it might be time for a major shakeup because it's probably more than the weather that's affecting your motivation.

Whether your routine has grown stale and predictable, it has remained too intense (or merciful) for too long, or you're simply looking to keep things short and sweet until the weather turns, try tagging in any of these 10 quick-hitting circuits from trainer Don Saladino the next time you consider playing hooky. Saladino, owner of Drive495 health club in New York City, has experience training high-profile clients such as Hugh Jackman, Ryan Reynolds, and other celebrities who operate on a strict time budget. In other words, his circuits will use a limited time frame to extract maximum results. All you need is a willingness to work hard for 20 solid minutes.

So the next time your backyard looks like Hoth and you tell yourself it's too cold to train, keep the No. 20 in mind. Because if you're unwilling to put in 20 measly minutes now, once it gets too hot to wear a shirt, you'll be the guy thinking twice about removing his.

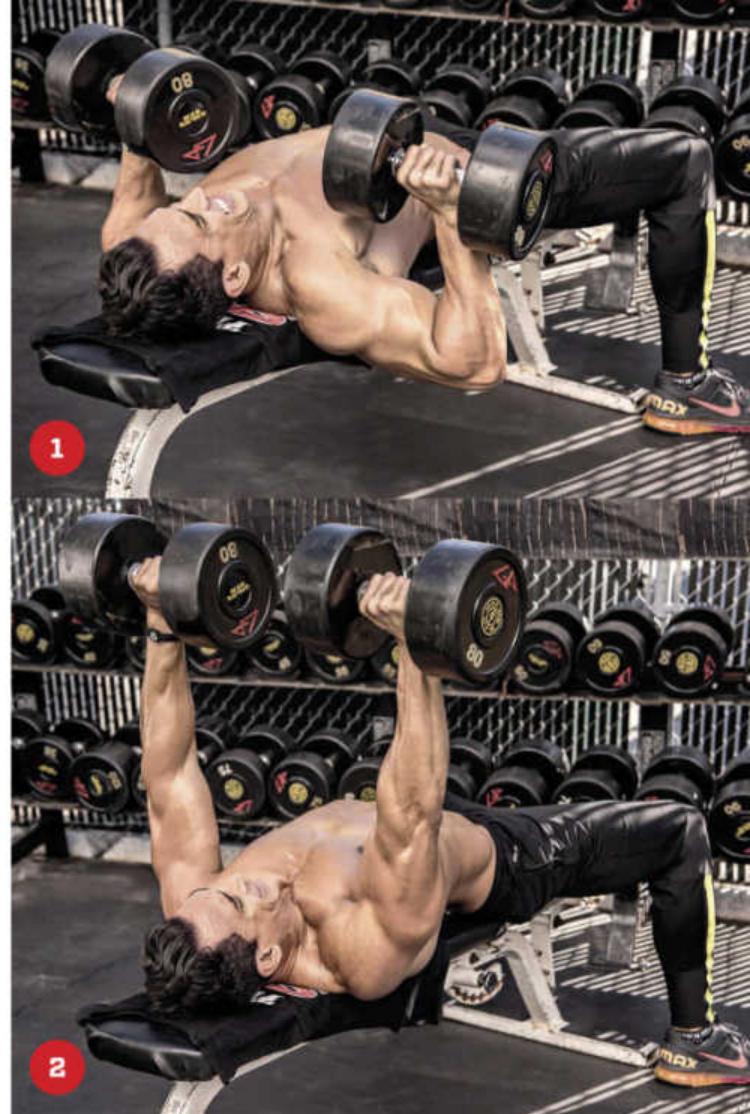
High-volume Circuit

Rounds: 3

EXERCISE	TIME*	REST*
Trap-bar Deadlift	40	15
Dumbbell Bench Press	40	15
Lat Pulldown	40	15
Rear Delt Flye (Machine)	40	15
Military Press	40	15
Machine Row	40	15
Plank	40	15
Barbell Biceps Curl	40	15
Triceps Pushdown	40	15

*In seconds; rest 1 minute between rounds.

SALADINO SAYS: "Work for the full 40 seconds on each exercise. Use light to moderate weight and make sure the last round is very difficult to complete."



DUMBBELL BENCH PRESS

Keep your core tight and maintain a slight arch in your lower back—but do not raise your butt off of the bench—as you press the dumbbells up over your chest.

TUT (Time Under Tension) Circuit

Rounds: 5

EXERCISE	REPS	TEMPO	REST*
Front Squat	5	5010**	30
Bench Press	5	5010	30
Pullup	5	5010	30
Dip	5	5010	30

**In seconds; rest 30 seconds between rounds.

**5010: Five seconds on the eccentric (lowering) phase, no pause at the midpoint, one second on the concentric (lifting) phase, and no pause at the top.

SALADINO SAYS: "When your time in the gym is limited and your goal is to develop muscularity and strength, employ this routine and its strict 5010 tempo."



FRONT SQUAT

An alternative to the cross-arm grip is a “clean” grip, where you grasp a racked barbell with your hands shoulder-width apart and allow it to rest on your fingertips. With either grip, keep the elbows pointed up to better balance the bar.

DUMBBELL LYING TRICEPS EXTENSION

Keep your elbows pointed upward; lower the dumbbells until you feel a stretch in your tri's.

Lower-body Circuit

Rounds: 4

EXERCISE	REPS	REST*
Split Squat	10	15
Dumbbell Romanian Deadlift	10	15
Lateral Lunge	10**	15
Lying Leg Curl	10	15
Leg Extension	10	15
Leg Press	10	15

*Rest 1 minute between rounds.

**Per leg.

SALADINO SAYS: "Expect to shock the lower body and get a lot of blood into your legs without the heavy pounding of maximal weights."



DUMBBELL SPLIT SQUAT

Keep your front shin vertical and drive your foot into the floor as you return to the standing position.



Upper-body Circuit

Rounds: 3

EXERCISE	REPS	REST*
Chest-supported Dumbbell Row	10	15
Alternating Incline Dumbbell Bench Press	10	15
Alternating Lat Pulldown	10**	15
Hammer Curl	10	15
Dumbbell Lying Triceps Extension	10	15

*In seconds; rest 40 seconds between rounds.

**Per leg.

SALADINO SAYS: "If you're tired, back off of the intensity and focus on getting blood into the muscle."

Chest Circuit

Rounds: 3

EXERCISE	REPS	TEMPO	REST*
Incline Dumbbell Bench Press	8	4010	40
Incline Dumbbell Flye	8	4010	40
Dip	8	4010	40
Machine Press	8	4010	40

*In seconds; rest up to 40 seconds between rounds.

SALADINO SAYS: "The lack of rest between sets will help get a tremendous amount of blood into the muscle while giving your joints a break. Throw this circuit in right after you get off an intense program."



Back Circuit

Rounds: 3-4

EXERCISE	REPS	TEMPO	REST*
Deadlift	8	4010	40
Assisted Pullup	8	4010	40
Hammer Row	8	4010	40
Close-grip Hammer Pulldown	8	4010	40
Chest-supported T-bar Row	8	4010	40

*In seconds; rest 40 seconds between rounds.

SALADINO SAYS: "It's effective for limited time and for getting maximal pump in the back. I have developed the wings of many superheroes using these principles."

INCLINE DUMBBELL FLYE

Avoid clanging the weights together at the apex of the movement to increase time under tension. Maintain a slight bend in the elbows throughout the rep.



Shoulder Circuit

Rounds: 4

EXERCISE	REPS	TEMPO	REST*
Side Lateral Raise	8	4010	30
Dumbbell Front Raise	8	4010	30
Seated Bentover Dumbbell Raise	8	4010	30

*In seconds; rest 30 seconds between rounds.

SALADINO SAYS: "If you're having trouble adding size to your shoulders, I'd suggest giving this routine a try."**Bi's & Tri's Antagonist Circuit**

Time: 20 minutes*

EXERCISE	REPS
Barbell Curl	8-10
Close-grip Bench Press	8-10
High-pulley Cable Curl	8-10
Rope Pushdown	8-10

*Take minimal rest between exercises.

SALADINO SAYS: "If you're able to keep moving for 20 straight minutes without rest you'll get a tremendous pump."**Abs Circuit**

Rounds: 4-5*

EXERCISE	REPS
Hanging Leg Raise	10
Ab Wheel	10
Landmine	10
Cable Crunch	10

*No rest between exercises; rest 15 seconds between rounds.

SALADINO SAYS: "Aim to keep going until you hit the 15- to 20-minute mark."**Metabolic Circuit**

Rounds: 5*

EXERCISE	REPS
Battling Ropes	20 sec. on / 20 sec. off
Sled Push	50 yards / 20 sec. off
Airdyne Bike	20 sec. on / 20 sec. off
Sprint	20 sec. on / 20 sec. off
Bear Crawl	20 sec. on / 20 sec. off

*Rest 1 minute between rounds.

SALADINO SAYS: "Perform each movement at about 85%. Along with torching fat, these exercises get you moving the way the human body was meant to move."**DUMBBELL FRONT RAISE**

Don't use momentum by adding a bounce at the bottom of a rep. Instead, execute each rep with your arms straight and elbows fully extended. When the dumbbells reach shoulder height, return them to the start position.

BATTLE ROPES

Hold a rope in each hand and sink into a squat position. Alternate moving one arm to your shoulder and the other toward your knee—or move both arms simultaneously—as quickly as possible for the prescribed time.



HIGH-PULLEY CABLE CURL

Keep your upper body and elbows in a fixed position as you curl the handles toward your ears; hold for a one count, and then reverse course until your body makes a T shape.

AB WHEEL ROLLOUT

Kneel on the floor, place the ab wheel handles, and slowly roll it away from you until your upper body is parallel with the floor (or as far as possible). At full extension, reverse course. MBF





MASTER OF HIS DOMAIN

THE GYM ACCORDING TO RON MATHEWS

CrossFit Games athlete Ron Mathews has reached the elite level of the sport's over-45 division with this grueling six-days-a-week routine.

/// BY JOE WUEBBEN /// PHOTOGRAPHS BY IAN SPANIER

There are CrossFitters, and there are CrossFit Games competitors. The latter is always the former, but the former is certainly not always the latter. We're talking about two completely different types of individuals here: a passionate yet recreational gym-goer versus essentially a professional athlete competing in one of the most physically (and mentally) demanding sports in the world.

The average CrossFitter is very well served with four or five hour-long training sessions a week. The Games competitor? Not even close. One WOD a day won't cut it. You need more like two or three.

Such is the training protocol of Ron Mathews, a true CrossFittering beast and third-place finisher in

the ultracompetitive men's 45-49 Master's Division in the 2015 Reebok CrossFit Games. The 46-year-old Mathews' typical weekly routine (outlined in its entirety on the following pages) hits on all the various attributes the Games athlete must excel at: brute strength, speed, power, endurance, conditioning across all energy systems, skill in Olympic lifts, skill and strength in gymnastics, stamina, grit, and mental toughness.

"Generally speaking, I'm working my strength and metabolic conditioning simultaneously in my programming," says Mathews, co-owner of Reebok CrossFit LAB in Los Angeles. "I don't do a 'bulking phase' followed by a 'cutting phase.' Of course, I'm not a competitive bodybuilder; I'm trying to maintain as much lean muscle as possible to be able to perform well and look great at the same time. As for weights on my lifts, I go as heavy as form allows, with this caveat: I must get all reps of all

sets with minimal rest."

Though physique enhancement isn't his top priority, Mathews starts his week (Workout 1, Part A) with what he calls a "giant set"—a circuit of five exercises, three of which (dumbbell flies, curls, and hammer curls) are taboo in the CrossFit world for their lack of "functionality."

"It's really hard for me to give up entirely on my roots," says Mathews, who's earned a reputation as an A-list physique specialist by training Hollywood celebs like Hugh Jackman and Joe Manganiello. "While not very CrossFit-y, that particular workout is surprisingly taxing, and I feel it adds to my 'intangible strength.' In the CrossFit Games, there's always some kind of odd object carry or sled push/pull, and I tend to either win or finish no lower than third in those. When you just have to brute through it, I feel like that workout helps me train for that."

RON MATHEWS
is also an *M&F*
contributor
and wrote our
preview of the
2015 CrossFit
Games.

MASTERING CROSSFIT

Below is a typical week of training for CrossFit Games Master's division competitor Ron Mathews. This doesn't include a 10- to 20-minute dynamic warmup performed at the beginning of each session with varying movements and activities, depending on the workout. "Much like an athlete getting ready to play a game, I treat my warmup as if I'm getting game-ready," Mathews says. "At the end of it, I'm ready to perform at max effort and max intensity from my first set."

Caution: These workouts were programmed for an elite-level CrossFit athlete (Mathews). These prescriptions are not recommended for a beginner or intermediate-level individual. Scale down training variables (movements, volume, resistance, intensity, etc.) based on your current fitness level.

WORKOUT 1 (MONDAY)

Part A – Chest/Biceps/Abs Circuit

Six rounds for time:

EXERCISE	REPS
Barbell Bench Press	10
Dumbbell Pec Flye	10
DB Alternating Biceps Curl	10 (per arm)
DB Hammer Curl	10
Straight-leg Raise	15

Part B – Metabolic Conditioning

Burpee Sandwich

For time:

EXERCISE	REPS
Double Under	100*
Burpee	50
Double Under	100*

*Optional substitution: 300 single unders.

WORKOUT 2 (TUESDAY)

Part A – Glute-hamstring/Thoracic Spine Warmup

Three rounds (not for time):

EXERCISE	REPS
Single-leg Shoulder Bridge	10 (per leg)
Hollow-body Single-leg Kick	15 (per leg)
T's and Y's (Bentover Rear-delt Raise)	10
Glute-ham Bench Situp*	15

*Optional substitution: V-ups.



BARBELL BENCH PRESS

Mathews says: "If I were doing sets of 10 on bench press with long rest periods, 225 pounds would be very doable. However, in this giant set I would start to fail in Sets 4, 5, and 6. Therefore, I use 185 pounds knowing that it's not a max effort in Sets 1, 2, and 3, but that it will be challenging for those last few reps in the later sets."



Part B – Strength Deadlift

(Warmup sets as needed)

Performed as traditional powerlifting/straight sets with sufficient rest between sets:

EXERCISE	REPS
Set 1	6 reps @ 65% of 1RM
Set 2	4 reps @ 75% of 1RM
Set 3	2 reps @ 85% of 1RM
Set 4	2 reps @ 90% of 1RM
Set 5	1 rep @ 95% of 1RM

Part C – Metabolic Conditioning

For time:

EXERCISE	REPS
Row “buy-in” followed by three rounds of:	500m
Deadlift (225 lbs)	5
Box Jump (24-inch box*)	10
Butterfly Situp	15

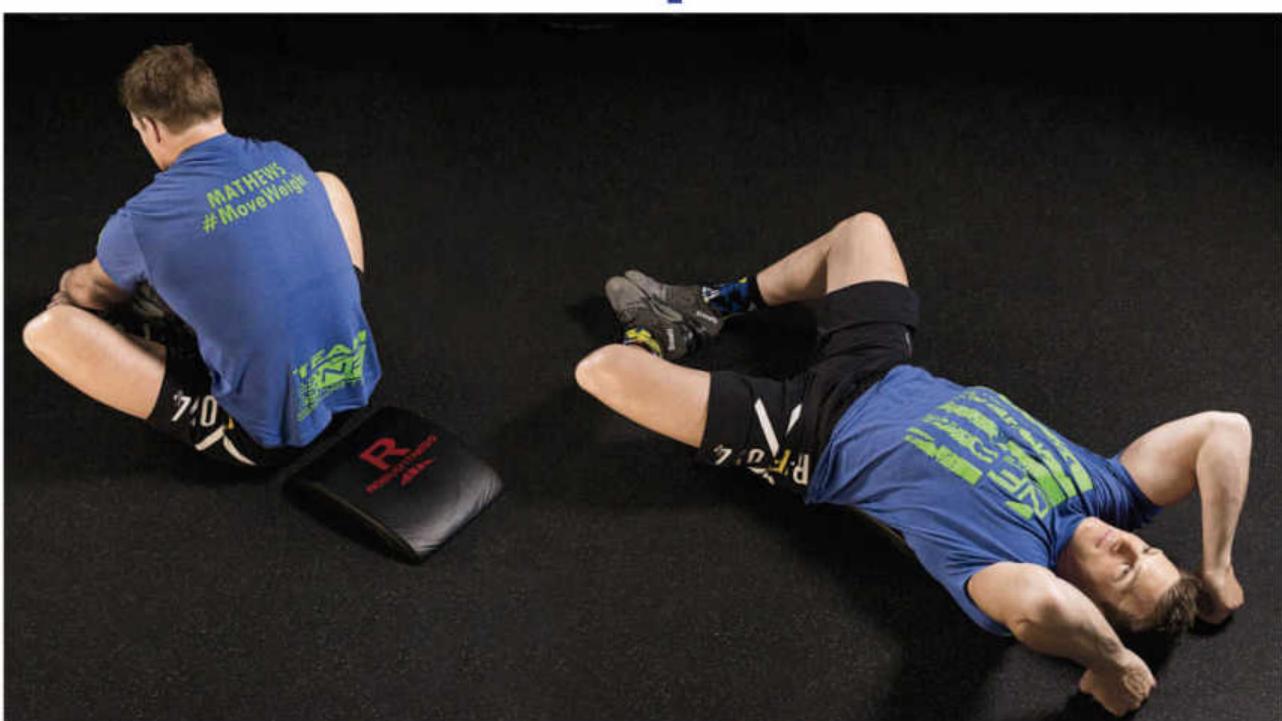
*Optional substitution: flat bench.

SINGLE-LEG SHOULDER BRIDGE

Mathews says: “In Workout 2 I’m getting some powerlifting in. Part A [featuring the single-leg shoulder bridge] is in addition to my warmup. I want to ensure that my glutes and hamstrings, along with my thoracic spine, are firing and able to support big weight before I jump into the deadlift.”

BUTTERFLY SITUPS

Mathews says: “Part C of Workout 2 is a sprint. I like to do these metabolic sprints [with explosive butterfly situps] because long-duration cardio burns calories but creates a body that looks like a marathon runner’s. I want to look like a sprinter—shredded and able to explode!”



RON MATHEWS



WORKOUT 3 (WEDNESDAY)

Part A – Metabolic Conditioning

Three rounds for time:

EXERCISE	REPS
Run	800m
Kettlebell Swing (70 lbs)	21
Burpee	21
Kettlebell Swing	15
Burpee	15
Kettlebell Swing	9
Burpee	9

Part B – Metabolic Conditioning/ Strength/Power

For time:

EXERCISE	REPS
Power Clean (205 lbs)	5-4-3-2-1*
Front Squat (205 lbs)	5-4-3-2-1*

*Five reps of power cleans, five reps of front squats (with bar in cleaned position from power cleans), four reps of power cleans, four reps of front squats, and so on, until doing one rep of each.

Part C – Metabolic Conditioning/ Gymnastics Skill

For time*:

EXERCISE	REPS
Ring Muscle-up	10
Bar Muscle-up	20
Chest-to-bar Pullup	30
Pullup	40

KETTLEBELL SWING

Mathews says: "Workout 3 [featuring heavy KB swings] is a grinder. Part A takes me about eight minutes per round for three rounds. You have to really dig in mentally to keep moving well as you get over 20 minutes in a workout with no rest."

BAR MUSCLE-UP

These are a little bit easier than muscle-ups on rings (the bar is stable, unlike the rings) but not by a lot. They still require a ton of upper-body strength and power.



*Rest one minute between exercises.

WORKOUT 4 (THURSDAY)

Part A – Rotator-cuff Warmup

Three rounds (not for time):

EXERCISE	REPS
DB Single-arm Press with Rotation	10 (per arm)
Banded Shoulder Internal/External Rotation	10 (per arm)

Part B – Gymnastics Skill/Handstand Pushup (HSPU)

EXERCISE	REPS
Strict Deficit HSPU	3x3
Kipping Deficit HSPU	3x6
Strict HSPU	3x9
Kipping HSPU	3x12

Part C – Strength/Power

Warmup on push press as needed, then*:

EXERCISE	REPS
Push Press	5x5

*Rest two minutes between sets, keeping weight at 75% of 1RM.



PUSH PRESS

Mathews says: "Push press is an assistance exercise for the split jerk. In the push press, the knees dip quickly, and then the weight is pressed overhead to full arm extension."



DEFICIT HSPU + KIPPING DEFICIT HSPU

A deficit handstand pushup is performed with hands on plates (pictured at right). To add a kip, bend your knees and extend powerfully for the aid of momentum.



RON MATHEWS



SNATCH

Warm up with an empty bar first to drill the right movement pattern. Remember: Most of the power should be generated in the initial pull when your hips are low. If you're still yanking the bar in the middle of the range of motion, then it's too heavy.

WORKOUT 5 (FRIDAY)

Part A – Olympic Lifting

Barbell Snatch

Every Minute on the Minute (EMOM) for 12 minutes:

MINUTE	WEIGHT USED (POUNDS)
1	30-40 below PR (personal record on snatch for 1 rep)
2	25-35 below PR
3	20-30 below PR
4	15-25 below PR
5	10-20 below PR
6	Rest
7	30-40 below PR
8	25-35 below PR
9	20-30 below PR
10	15-25 below PR
11	10-20 below PR
12	PR attempt

Part B – Olympic Lifting Auxiliary Work

EXERCISE

Snatch-grip Deadlift at 100% of best snatch weight, 3x2

Snatch-grip Deadlift at 115% of best snatch weight, 3x1

Snatch-grip Push Press (from behind the neck), work up to a heavy 2-rep max

Part C – Strength

EXERCISE

Barbell Squat, 5x2 (increasing weight gradually each set)

Front Squat, 1x10 (heavy)

Part D – Sprinting

Three rounds for time:

EXERCISE

2x60-second sprint*

Rest 3 minutes

2x40-second sprint

Rest 2 minutes

2x20-second sprint

*Optional substitution: hill sprints, stationary bike, stair sprints.

ROW

Powerful, complete reps are more useful than quick ones, even in a race. Lean forward and let the chain recoil fully into the chamber. Then extend your legs and row the handle to your chest.

WORKOUT 6 (SATURDAY)

Part A – Metabolic Conditioning/

Body-weight Calisthenics

For time:

EXERCISE	REPS
Run	1,200m
Body Weight/Air Squat	100
Situp	80
Pushup	60
Pullup	60

Part B – Metabolic Conditioning/Cardio

For time:

EXERCISE	REPS
Row*	2,000m

*Optional substitution: Bike or other cardio activity performed at 75% of peak intensity for seven to nine minutes.

(SUNDAY)

Rest





CLEAN IT UP



FILET MIGNON ITALIANA

SERVES 2

2 (6 oz) lean filets mignons
½ Spanish onion, thinly sliced
2 thin slices yellow bell pepper
2 thin slices red bell pepper
2 baby portobello mushrooms, thinly sliced
2 plum tomatoes, cut into 1-inch pieces
2 garlic cloves
1 tbsp chopped fresh basil
2 fresh bay leaves
2 tbsp extra-virgin olive oil
Sea salt and black pepper, to taste

1. Preheat oven to 350°F.
2. Place filets mignons in an oven pan. In a bowl, combine remaining ingredients, then pour over beef. Cover with aluminum foil.
3. Bake 20 to 30 minutes, depending on desired doneness for beef.

THE MACROS

622 CALORIES | 57g PROTEIN | 32g CARBS | 31g FAT

Abs season is closer than you realize. The sooner you ditch the winter comfort foods and start cleaning up your diet, the easier it'll be to make the transition. We enlisted bodybuilder turned chef **CARLO FILIPPONE** to come up with five killer recipes so that eating clean won't feel like such a chore.

PHOTOGRAPHS BY TRAVIS RATHBONE



LEMON-PEPPER CHICKEN WITH FINGERLING POTATOES AND KALE

SERVES 2

- 2 (6 oz) boneless, skinless chicken breasts, cut into 1-inch-wide strips
- 6 fingerling potatoes, sliced in half
- 1 cup coarsely chopped kale
- 1 tsp chopped fresh cilantro
- Juice of $\frac{1}{2}$ lemon
- 1 tbsp extra-virgin olive oil
- 2 pinches sea salt
- 2 pinches black pepper or $\frac{1}{4}$ tsp peppercorns

1. Preheat oven to 400°F.
2. Place chicken strips in an oven pan. In a bowl, combine remaining ingredients, then pour over chicken. Cover with aluminum foil.
3. Bake for 30 to 35 minutes.

THE MACROS

639 CALORIES | 55g PROTEIN | 59g CARBS | 20g FAT

HONEY-GINGER SALMON AND ROOT MEDLEY

SERVES 2

- 2 (6 oz) salmon fillets (skin off)
- 1 carrot, cut into $\frac{1}{2}$ -inch cubes
- 1 parsnip, cut in $\frac{1}{2}$ -inch cubes
- 1 beet, cut in $\frac{1}{2}$ -inch cubes
- 1 turnip, cut in $\frac{1}{2}$ -inch cubes
- 1 small piece fresh ginger, cut into $\frac{1}{2}$ -inch cubes
- 2 garlic cloves
- 1 sprig fresh rosemary
- 2 tbsp honey
- 1 tbsp olive oil
- 3 pinches sea salt
- 3 pinches black pepper

1. Preheat oven to 400°F.
2. Place salmon in an oven pan. In a bowl, combine remaining ingredients, then pour over salmon. Cover with aluminum foil.
3. Bake for 30 to 40 minutes.

THE MACROS

457 CALORIES | 36g PROTEIN | 43g CARBS | 18g FAT





CHICKEN DIP

SERVES 4

10 oz boneless, skinless chicken breast (grilled), chopped into small pieces

½ tsp minced garlic

1 tsp finely chopped onion

1 tsp finely chopped red bell pepper

1 tsp finely chopped green bell pepper

1 tsp finely chopped fresh cilantro

5 tbsp reduced-fat mayo

3 pinches sea salt

1 pinch black pepper

2 dashes paprika

1. In a bowl, combine all ingredients, except for paprika. Place in a serving bowl. Dust with paprika. Chill at least 30 minutes before serving.

THE MACROS

149	23g	3g	5g
CALORIES	PROTEIN	CARBS	FAT

Salmon Dip

SERVES 4

- 8 oz reduced-fat cream cheese (room temperature)
- ¼ cup fat-free sour cream
- Juice from 1 lime
- 8 oz smoked salmon, chopped into small pieces
- 2 plum tomatoes, cut into 1-inch pieces
- 2 pinches black pepper
- 2 tbsp chopped fresh chives
- 1 tbsp chopped fresh dill

1. In a bowl, combine cream cheese, sour cream, and lime juice.

2. Mix in remaining ingredients, except for 1 tbsp chives and dill. Pour into a serving bowl. Top with remaining chives and dill. Chill at least 30 minutes before serving. MAF

THE MACROS

241 CALORIES | **18g** PROTEIN | **9g** CARBS | **15g** FAT



ABOUT THE CHEF

Carlo Filippone is an IFBB pro bodybuilder and the owner of Elite Lifestyle Cuisine, a service that delivers fresh clean meals right to your door: elitelifestylecuisine.com



The HULK Gene

Scientists have unlocked the code for unlimited muscle growth, a breakthrough that has the potential to save millions of lives—and create lots of really muscular people.

BY SHAWN PERINE // PHOTO-ILLUSTRATION BY ERIC HEINTZ

IN 1997 Se-Jin Lee, M.D., a professor of molecular biology and genetics at Johns Hopkins' Institute for Basic Biomedical Sciences, with the assistance of then-graduate student Alexandra C. McPherron, made a groundbreaking discovery. While studying cell growth and differentiation in mice, Lee and company found that by knocking out a previously unidentified gene in embryonic mouse cells, they could create "mighty mice"—animals that carried twice as much muscle mass as their normal siblings. Lee dubbed the previously undescribed gene "myostatin," after the protein whose release it is coded to trigger.

Myostatin protein limits muscle growth in a number of animals during the developmental and adult stages. The myostatin gene regulates it in much the way a spigot regulates the flow of water. Normally, the spigot is left open, myostatin is released into the bloodstream, and skeletal muscle growth is kept in check. When the spigot is turned off, however, as in the case of Lee's mighty mice, muscle growth is unimpeded. McPherron et al. described the phenomenon in the May 1997 scientific journal *Nature*. A startling photo of a transgenic mouse side by side with its genetically unaltered brethren reveals that the genetically altered mouse sports bulging calves, round sweeping thighs, and knotty back muscles, but the control mouse is typically mouselike. In describing his muscular subjects, Lee was quoted in *Johns Hopkins*

Magazine as saying that "they look like Schwarzenegger mice."

It wasn't long before Lee noted that his heavily muscled mice bore a close resemblance to a couple of other Mr. Olympias of the animal kingdom, namely the Belgian Blue and Piedmontese breeds of cattle. Like the mice, the beefy bovines are the result of genetic manipulation, but not the kind done in a lab.

In the early 1800s, Belgian livestock breeders noticed that some of their cattle possessed much more muscle and less fat than others. Seeing the upside to lean, meaty stock, they crossbred the biggest of the big to create a lineage of supermuscular cattle, commonly



MIGHTY MOUSE At left, the "Schwarzenegger" mouse.



referred to as "double-muscled." The half-ton-plus, marathon-runner-lean animals became highly prized for their rich meat.

Gregor Mendel may have become famous as the "father of genetics" for his cross-pollination of pea plants, but the cattle breeders were unwittingly conducting a form of genetic research all their own and in many regards as significant as that done by Mendel.

What the Belgian breeders didn't consider at the time, but Lee would confirm two centuries later through gene analysis, was that they'd managed to breed cattle that carried a mutated version of the myostatin gene. The result was oversize muscles due to both hyperplasia (the creation of new muscle cells) and hypertrophy (the expansion of existing muscle cells).

With evidence mounting, it became apparent that the myostatin gene might be the key to unlocking the mysteries of muscle-wasting diseases, such as muscular dystrophy, in humans and may even offer hope for a day in which muscle degeneration would no longer be an inevitable by-product of the normal aging process. Of special note to researchers is the fact that myostatin sup-

FOR BODYBUILDERS AND STRENGTH ATHLETES, IT COULD MEAN AN ADVANTAGE SO GREAT THAT IT WOULD LEAVE STEROIDS, GROWTH HORMONE, AND INSULIN IN THE DUST.

pression shows a dramatic effect on skeletal muscle but little, if any, effect on smooth muscle and cardiac muscle. The internal organs, as well as the hearts, of the transgenic mice, like the cattle's, remained normal in size.

Of course, altering genes in the embryonic stage of development is a technique that can't be applied to MD patients, even if myostatin were found to play the same role in humans that it did in mice. "Knocking out" the myostatin gene isn't possible for treating patients," Lee said in a 2002 interview quoted in *Science Daily*, "but blocking the myostatin protein might be."

THE IGF-1 ANGLE

At around the same time Lee and his co-workers were conducting their experiments, University of Pennsylvania professor H. Lee Sweeney, Ph.D., was leading a team of researchers investigating a different form of gene therapy to increase muscle mass, also in hopes of

KING RONNIE

At right, we imagine what Ronnie Coleman could've looked like with inhibited myostatin.



mitigating the effects of muscular dystrophy. Rather than using a method of subtraction (myostatin protein), Sweeney's group focused on increasing the production of a hormone known to influence the production of muscle—insulinlike growth factor-1 (IGF-1)—with rats as the test subjects. IGF-1 is secreted by the liver and produced in other tissues, such as muscles, and promotes growth via several different means.

The team injected the hind legs of the rats with a modified virus containing a gene that would trigger increased production of IGF-1. Then the rats were put on an intensive training regimen of ladder climbing to exercise their leg muscles. The result was a 15–30% increase in the size and strength of the rats' legs. Even those not put through this experimental rat race displayed a muscle mass increase of 15–20%.

One potential downside to the IGF-1 therapy, however, is that, unlike myostatin, the hormone affects an array of tissues besides skeletal muscle. Although

PREVIOUS SPREAD: MICE REPRINTED FROM CURRENT OPINION IN GENETICS AND DEVELOPMENT, VOL. 9, S.J. LEE & A.C. MCPHERSON, MYOSTATIN AND THE CONTROL OF SKELETAL MUSCLE MASS, PGS 604-607, WITH PERMISSION FROM ELSEVIER.



WENDY THE WHIPPET

Some whippets, which are often used as racing dogs, possess a genetic mutation that makes them incredibly muscular, as seen here in a "bully whippet" named Wendy. Bully whippets are usually the fastest dogs on the track.

THAT'S MYO BOY

When pediatric neurologist Markus Schuelke of Charité University Medical Center in Berlin, Germany, took his first glance at a particularly jittery newborn in 1999, the doctor immediately noticed a startling physical anomaly. Like those of Lee's mice, the boy's limbs were bulging with well-developed muscles. He looked as if he had been pumping iron for years, despite being fresh from the womb. Only weeks earlier, an associate of Schuelke's had read the report by Lee and his colleagues and suggested that the boy might have a naturally occurring mutation to his myostatin gene, as in the Belgian Blue and Piedmontese cattle.

Using a special device, Schuelke discovered that both copies of the boy's myostatin gene were inactive, meaning he produced no myostatin at all. He was essentially a muscle-making machine without an "off" switch. Other than muscle size and strength about twice that

no negative side effects were reported in the study, questions remain as to whether ancillary tissue growth could be a by-product of the injections.

Although the results of the IGF-1 study didn't yield the same kind of muscle-mass gains as the myostatin project, the upside was that the therapy was performed on mature animals, rather than embryonic ones. The implication was that injections directly into mature muscles could result in significant growth on a site-by-site basis.

Still, neither approach had been tested on humans, and it was unclear whether such genetic tampering would even yield similar results. Although the lab mice and rats showed no visible side effects, the question remained as to whether unrestricted skeletal muscle growth would prove safe in people.

Then, in 2004, news broke of a toddler in Germany whose existence would advance muscle-building science as much as all the hypermuscular mice, rats, and cattle combined.



BELGIAN BLUE

This animal carries a myostatin mutation that allows its muscles to grow to huge proportions.

of an average baby, however, Super Baby showed no abnormalities or health issues as he aged. Most important, the absence of myostatin protein in his system did not affect the size of his heart muscle.

Upon testing the boy's 24-year-old mother, who was naturally muscular, it was discovered that she, too, had the myostatin gene mutation, although only in a single copy of her myostatin gene. The other mutated gene almost definitely came from his father, but no information about him was disclosed. Interestingly, it was reported that the men of the woman's family were unusually strong, with her grandfather being said to manhandle 330-pound curbstones as a construction worker.

At last, definitive proof existed to support the theory that myostatin affected humans in the same way as animals. "It's a huge step," Lee told *The Seattle Times*. "Based on animal studies, we thought it worked in humans. But there was lingering uncertainty.

"Now we can say that myostatin acts the same way in humans as in animals," commented Schuelke, as reported by the Associated Press. "We can apply that knowledge to humans, including trial therapies for muscular dystrophy."

EDGE OF REALITY

In December 2005, a report was published in the *Proceedings of the National Academy of Sciences* citing

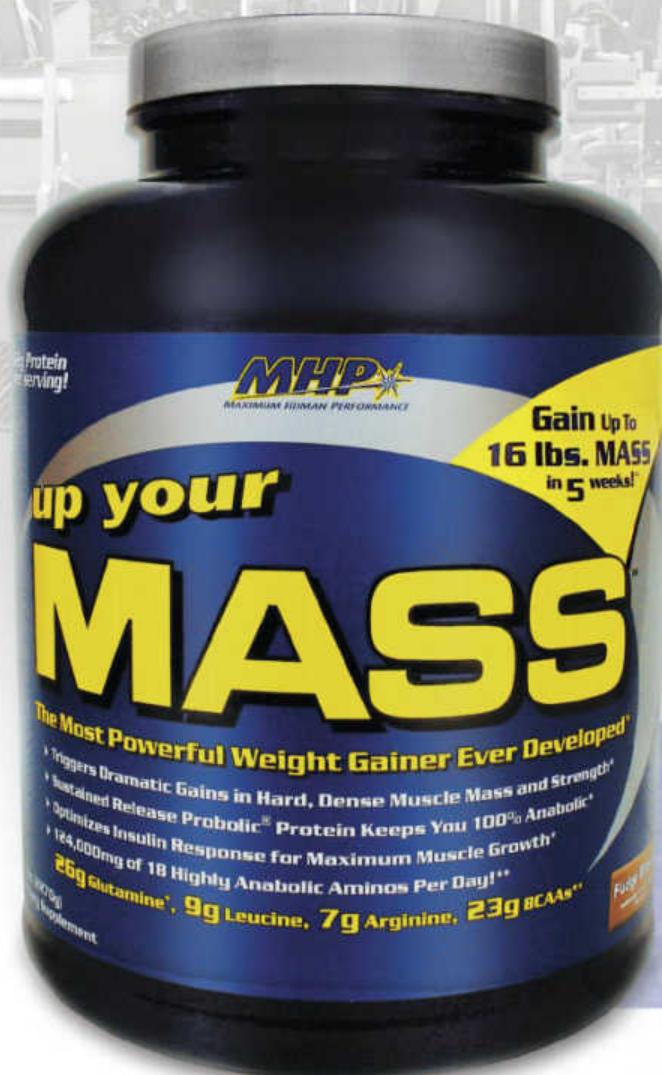
the development of an agent by Lee's group that trumped all others in producing muscle. The new myostatin inhibitor, called ACVR2B, worked far better and faster than even Lee had anticipated.

"The soluble form of the myostatin receptor is by far the most potent agent that's been described to date, and we showed in that paper that just two injections of this agent spaced one week apart can increase muscle mass by 40–60%," Lee says.

That means that only two weeks after the first of two injections of ACVR2B into a mouse muscle, there can be up to a 60% increase in mass. For researchers, as well as victims of muscle-wasting diseases such as MD and AIDS, Lee's latest discovery holds exciting promise. For bodybuilders and strength athletes, it could mean an advantage so great that it would leave steroids, growth hormone, and insulin in the dust. What's more, unlike those ergogenic drugs, gene therapy would be, for practical purposes, undetectable.

It's inevitable that Lee's ongoing myostatin research, and possibly Sweeney's IGF-1 project, will soon yield therapies that will save the lives of millions of people afflicted with muscle-wasting diseases. Aging will no longer mean a default loss of muscle size and strength, and seniors will suffer far fewer falls due to unsteady limbs. Recovery from injury or disease will not be hampered by muscle atrophy, and even astronauts

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spending prolonged periods in orbit can return to Earth without any loss of strength. All this may be possible and sooner than you might think.

This past October, researchers in China announced that they had engineered brother and sister beagles (named Hercules and Tiangou) with disruptions in both copies of their myostatin genes. Consequently, the siblings look like canine versions of the Incredible Hulk and the She-Hulk. Another dog breed, the whippet, has seen a gene mutation among its ranks without human intervention.

“Bully whippets” have one or both copies of their myostatin genes mutated, causing the normally wispy dogs to be loaded with rippling muscles.

Presently, Pfizer is conducting a Phase 2 study of an intravenous myostatin blocker on 6- to 10-year-old boys with Duchenne and Becker muscular dystrophy to see if it will help restore muscle mass and strength lost to the diseases. As of this writing, however, no results of human testing have been reported.

“There is every expectation that we will see the same effects in humans that we do in mice, given that myostatin plays a role in regulating muscle mass in humans, but we just don’t know,” says Lee. “There’s no data

ON A SLIDING SCALE OF MORALITY, HOW DOES GENE-MUTATION THERAPY COMPARE WITH STEROID USE, FIXING A GAME, OR CORKING A BAT?

addressing that as of yet. That will be answered to some extent by the clinical trial being run by Wyeth Pharmaceuticals. Of course, it’s not yet known what the long-term effects of living a life without myostatin will be.”

One potential long-term downside to quieting the myostatin gene function has to do with the source of new muscle growth—satellite stem cells. It appears that myostatin exists to regulate growth, which it does by ensuring that muscle cells do not overdraw from the store of satellite stem cells kept in reserve. What happens



GUNTER SCHLIERKAMP, reimaged at right as a 375-pound bodybuilding monster. The real Gunter is at left.

when stem cells are constantly being called into action is anyone’s guess. Do stem cells replenish indefinitely, or is there a finite supply? Another potential risk is the long-term effect on involuntary muscles, like the heart. The hearts of bully whippets and Piedmontese cattle aren’t especially large, but could long-term use of a myostatin inhibitor lead to heart-muscle growth?

Regardless of risks, unknowns, or medical caveats, it’s a sure bet that athletes will be hurdling over one another to be among the first in their sports to take advantage of myostatin treatment. Unforeseen long-term effects notwithstanding, myostatin blockers already appear to be more effective and safer than anabolic steroids, growth hormone, and insulin, the three most prominent ergogenic drugs used by athletes today. In addition, testing for genetic mutation would be a far less practical and reliable affair.

The questions that should most concern bodybuilders and other athletes are not scientific in nature but moral. If a treatment is created to benefit the diseased and dying, what are the ethical ramifications of using it for personal glory?

On a sliding scale of morality, how does gene-mutation therapy compare with steroid use, fixing a game, or corking a bat? Certainly, it would become illegal to administer such therapy without the consent of a physician, so how does one justify breaking the law in the name of athletic performance?

With any new technology comes debate over how it should be used, regulated, and harnessed. The current state of genetic testing in the area of muscle growth necessitates that the time for such discussion is now. **MF**



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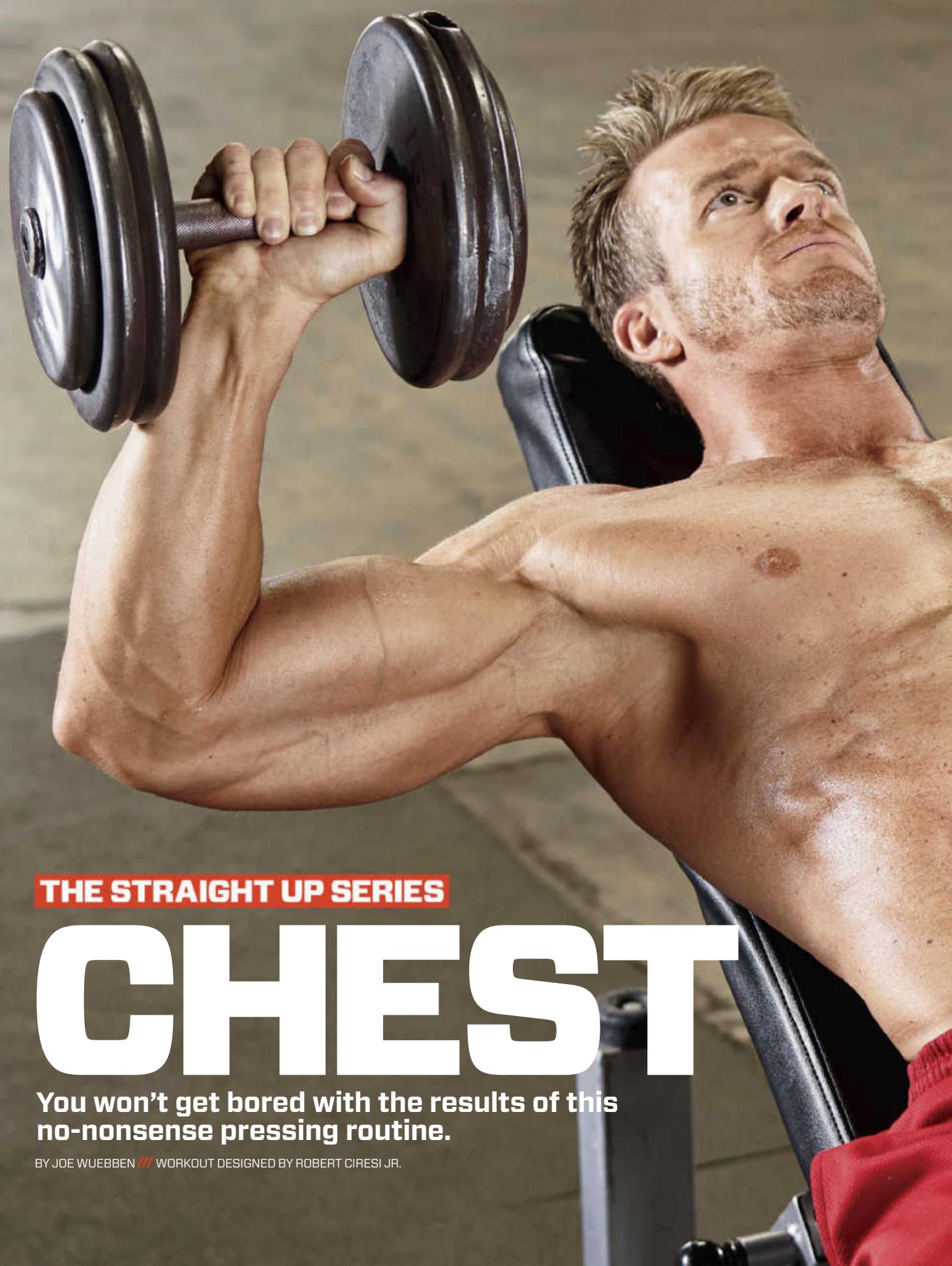
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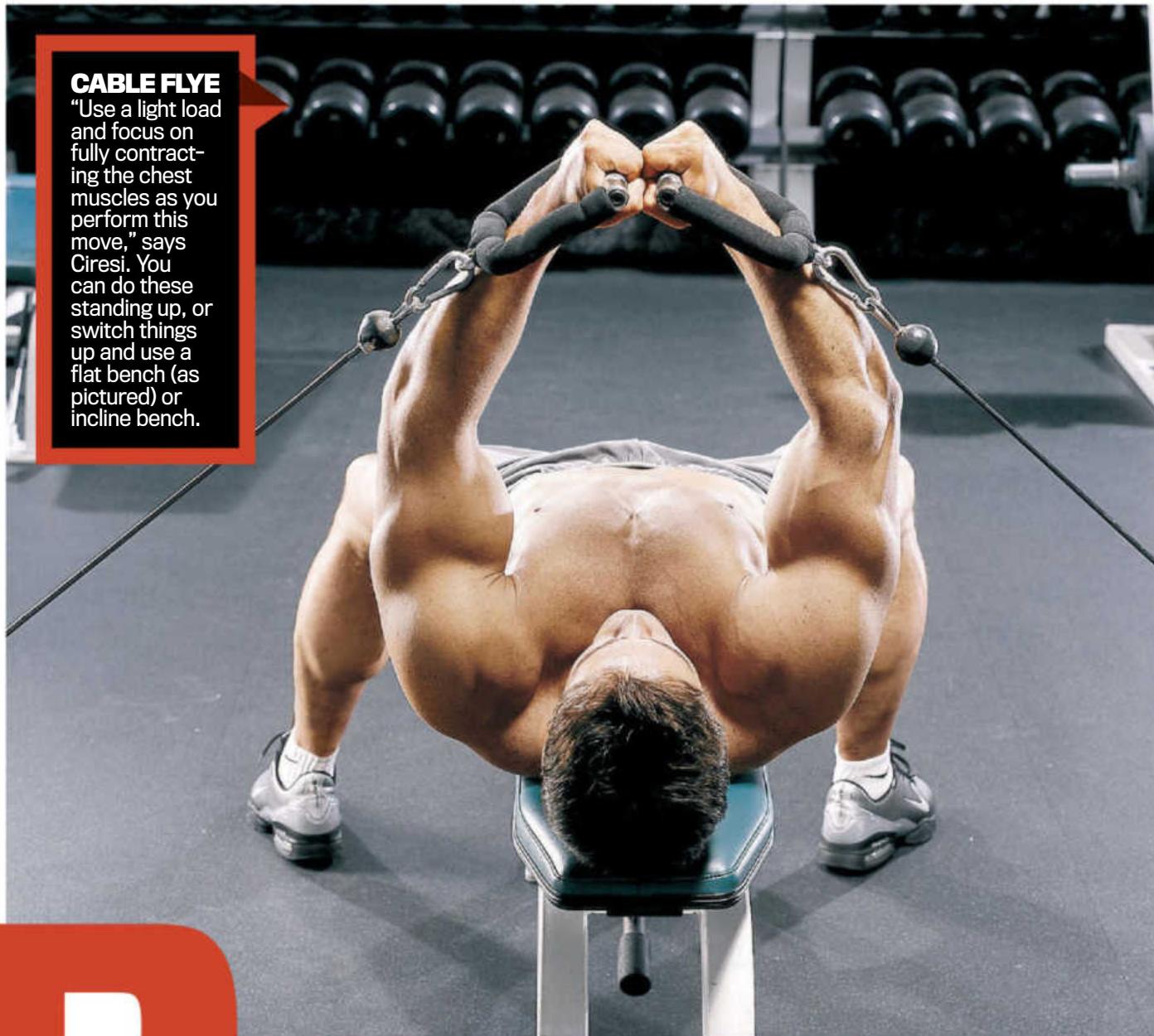


INCLINE DUMBBELL PRESS

Push yourself on how much weight you use. Every other week, switch up your exercise order and do inclines first, then flat bench. And if you feel like swapping out the dumbbells for a barbell, you can do that, too.

CABLE FLYE

"Use a light load and focus on fully contracting the chest muscles as you perform this move," says Ciresi. You can do these standing up, or switch things up and use a flat bench (as pictured) or incline bench.



POWERLIFTER AND CREATOR of the famed 5/3/1 program Jim Wendler popularized the term "Boring But Big" to describe his protocol of utilizing the most basic exercises with very straightforward set and rep schemes. Sure, it looks dull on paper, but it kicks your ass in the gym and gets you pretty swole to boot. Almost makes you wonder why the

word *boring* is even associated with such results.

Boring But Big may very well have been the inspiration for this chest workout, designed by ISSA-certified trainer and two-time *Muscle & Fitness* Male Model Search competitor Robert Ciresi Jr. The exercises all look familiar, which is exactly the point, and there are no fancy rep

schemes either. But you know what never goes out of style? Heavy sets of 10 reps on compound exercises. "This is a four- to six-week cycle that will produce muscle growth and strength," says Ciresi, who trains out of A Taylored Body gym in Riverside, CA. "It's tried-and-true stuff—some good old-fashioned grunt work."



PUSHUPS

"Do your best to get all 25 reps in a clip," says Ciresi. "If you can't get all 25 straight, rest-pause to reach that rep count." You can start with standard pushups, but to keep things fresh, try them with feet elevated (pictured).



THE WORKOUT CHEST

EXERCISE	SETS	REPS	REST
Bench Press	4	12	2-3 min.
Incline DB Press	4	10	2 min.
Cable Flye	2	20	1 min.
Pushup	2	25	1 min.

BENCH PRESS

Employ a spotter on this exercise, as the idea here is to go as heavy as possible while not letting your form suffer. Ciresi notes that by the seventh rep, it should feel difficult, so that hitting 12 reps is a true challenge. Don't short-change your rest periods on the bench; let your muscles recover between sets. MF

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SPOTLIGHT

How one CEO fought unfair sanctions from the FTC, p142.

SUPP PICK

MuscleTech's protein powders also help you get ripped, p146.

SUPPS

THIS MONTH IN SUPPLEMENT NEWS

Go for the Krill

Why you should supplement with healthy fats from this tiny crustacean. **BY STEVEN STIEFEL**

KRILL ARE AT THE BOTTOM of the food chain, and you're at the top. Because of that you likely eat a lot of things that eat a lot of things that eat krill. But few bodybuilders or other humans eat krill, and so you likely don't derive the direct benefit of consuming EPA and DHA, the healthy omega-3s they contain. In fact, you almost surely don't consume enough EPA and DHA overall because they're extraordinarily low in our food supply. The only foods with a high ratio of EPA and DHA to other fats are some fatty seafood sources including salmon and sardines. This means that you should consume more fatty fish or supplement EPA and DHA from krill oil if you want to gain the benefits these crucial fats provide.

DMYTRO PYLYPENKO/ALAMY; CHARLES WOLLERTZ/ALAMY

TAKE THE RED PILL

Why every hard-training athlete should consider supplementing EPA and DHA and, especially, krill oil.

A BRAIN BOOST

EPA and DHA support cognition, immune function, and muscle growth and hasten recovery from intense training. These omega-3s are uncommon, so you want to emphasize fatty fish and supplements.

A POWERFUL DOSE

Krill oil is much higher in the phospholipid versions of omega-3s than other fish oil supps. It also emulsifies better in your stomach, so it enters your system much faster.

A CLEAN SOURCE

Most krill live in clean Antarctic waters, so their oil is less contaminated than average fish oil. Krill are also one of the most plentiful species on the planet, so eating them doesn't hurt the environment.

TAKE IT For best results, take up to 1 gram of a krill oil supplement with any whole-food meal for a total of up to 2g per day.



Walking The Walk

Few people would have criticized Hi-Tech Pharmaceuticals CEO **JARED WHEAT** if he didn't stand up to the FTC—except Jared Wheat.

BY MICHAEL IRONS

IN 2014, A JUDGE SIDED

with the Federal Trade Commission (FTC) in a clash with Hi-Tech Pharmaceuticals concerning the alleged use of unsubstantiated claims on supplement labels and marketing materials. The "misleading" assertions made by Hi-Tech? Describing some of its weight-loss products as "thermogenic" and a "metabolic aid." The ruling left Hi-Tech, a Georgia-based supplements provider and manufacturer, on the hook for \$40 million in sanctions.

Hi-Tech's president and CEO, Jared Wheat, doesn't believe the FTC cared to discover whether the products in question actually contained ingredients that would kick-start thermogenesis or boost metabolism. Instead, he says, it boiled down to Hi-Tech's refusal to put the products through a \$100 to \$200 million double-blind placebo study.

"I remember thinking, 'If I can't call something 'fat burning' or a 'weight-loss aid' without a double-blind placebo study, when we've been using ingredients that we know do those things, I need a new business,'" recalls Wheat. "In the past I've done double-blind studies that cost \$30,000 to \$150,000, but you can't patent most of the ingredients [in workout supplements]. So by the time you're done with a two-year, \$100 million study, the fad might be gone or the compound might not pay off."



Hi-Tech's company principles: innovation, quality, and consistency.

It wasn't the first time Wheat battled the FTC. In 2004 he was smacked with a multimillion-dollar lawsuit and later jailed when he stood up to the FTC amid a product-recall demand. In 2014, history repeated itself. First came the fine—this one more than twice as much as the previous one—and then jail.

(Wheat and another Hi-Tech executive were found in contempt of court, resulting in a 63-day lockup.)

With the \$40 million judgment looming, Wheat had two choices: take the easier, cheaper route and settle the case or again do battle with the FTC. He chose the latter.

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Being an ISSA Certified Fitness Trainer has allowed me to use my passion for fitness to inspire and motivate my clients to make positive changes in their lives. Helping people improve their lives through fitness is extremely rewarding, and I am fortunate to be able to do that as my profession. I’m proud to be an ISSA CFT and I look forward to helping more people experience the benefits that a healthy and balanced lifestyle has to offer.”

—Parker Cote, ISSA CFT
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"Why pay lawyers three-fourths of the way through, if you're going to blink at the end?" he asks. "Plus, I'm perfectly situated to fight the fight because I don't have to go to a board of directors to get permission to stand my ground. To me, it goes back to the schoolyard bully—the guy might beat you up, but if you know you're right and you hit him back, then he might not come at you again. In this case, if you know you're right, and you believe you can win, then you can impact the whole industry."

Last May, the 11th Circuit of Appeals overturned the \$40 million judgment, citing testimonies from experts that reinforced what Hi-Tech had said all along—that the claims on its labels and promotional materials were accurate and used in good faith. And just as Wheat predicted, the ripple effect from the victory would be industry-wide: A few months later, facing similar FTC allegations, Bayer Corp. was cleared of all wrongdoing.

"We're still a young industry," Wheat says, citing the Dietary Supplement Health and Education Act (DSHEA) of 1994 as the official start of government involvement in the dietary-supplement industry. "The law is still being interpreted on the books by the FTC or FDA [Food and Drug Administration], so [those agencies] might point you toward a case that was settled and tell you it's law. But it's not the law—they're referring



HANGING WITH HI-TECH
Wheat, right, has been in the supps game for decades.

to a group of people who threw in the towel. That might be what they want the law to be, but that doesn't make it so."

For Wheat, the latest FTC episode serves as another chapter in a long history within the health and fitness industry. "Growing up...I sold products from Twin Labs, Weider, and the Costellos, even before Optimum was a household brand," he says. "It goes back to when I was a kid lifting weights in the 1980s, selling products to get mine for free. Then after graduating from college in '94, I made a business out of it. This is the only job I've had since."

The quick-paced, ever-changing nature of the game during the past two decades has forced Wheat and Hi-Tech to stay nimble and adapt to remain key

players in the game. And even as he dealt with the FTC litigation, Wheat continued to elevate Hi-Tech's standing and diversify its offerings. In 2015, his company acquired a handful of inventive brands, including iForce Nutrition, Nittany Pharmaceuticals, Advanced Pharmaceuticals and Nutritionals, FormuTech Nutrition, LG Sciences, and Innovative Laboratories.

"Our goal has been to find smaller, innovative brands that don't have the money to get to that next level," Wheat explains. "On top of that, the acquisitions have provided me with talented employees who have their finger on the pulse and can help build the business. Now I'm able to put the last 5% or 10% touch on there instead of feeling like I have to do all 100%."



Hi-Tech Pharmaceuticals was founded in 1994 and is based in Norcross, GA, just north of Atlanta. The company creates, manufactures, and sells dietary supplements, including these, that can be found in major retailers such as GNC, Duane Reade, Walgreens, Kmart, and on target.com and amazon.com.

GOING HI-TECH



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Nitro-Tech Ripped combines that whey with proven fat fighters like CLA, leucine, and green tea to maximize the kick to your metabolism post-workout, while Nitro-Tech Power blends creatine, leucine, and BCAAs to help boost testosterone levels and spike overall muscle growth.



SANTI ARAGON earned his IFBB pro card at the 2014 NPC Nationals. He is sponsored by MuscleTech.

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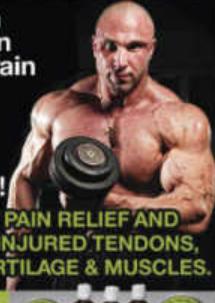
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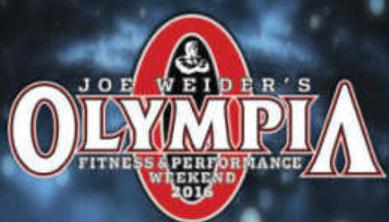
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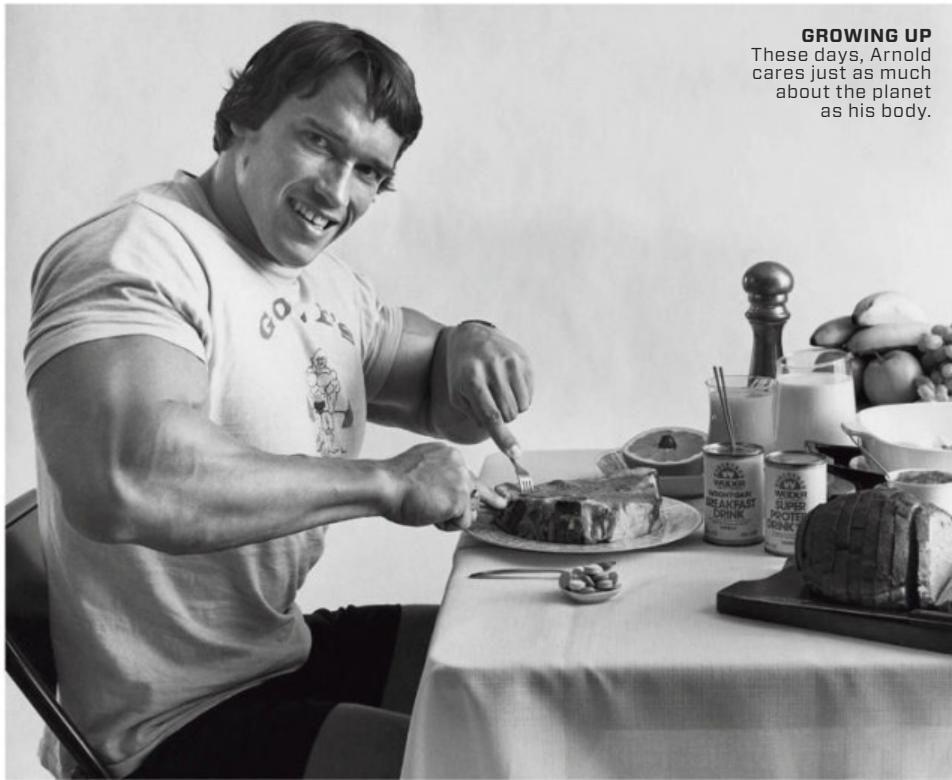
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GROWING UP
These days, Arnold cares just as much about the planet as his body.

Meatless Mondays

Arnold wants you to “hit like a vegetarian.”

I'VE ALWAYS FOUND

it funny that while body-builders and vegetarians traditionally want the same things—better health and a fitter body—they haven't always gotten along. Bodybuilders see vegetarians as being weak, thinking their refusal of meat makes them “girly men,” while vegetarians look at us as “meatheads” who prize our muscles over the good of the environment.

I've certainly been guilty of knocking our crunchy

granola friends in the past. In my movie *Escape Plan*, I even accuse Sly Stallone's character of hitting “like a vegetarian” during our fight scene. But that's just the kind of macho bluster that makes for a fun movie—it's not the way I really feel. As a matter of fact, I'm eating less meat these days myself, and I'm proud of it.

Last December, I asked people to try “Meatless Monday,” wherein everybody abstains from meat for just one day a week.

Almost 15% of greenhouse gases come from livestock farming, so cutting back on meat consumption even slightly can have a big, positive impact.

As for how it will affect your fitness goals, it won't. Meat is a great source of protein, but it's not the only one. You can get it from combinations of beans and grains and, of course, supplements. Your muscles won't know the difference. Bill Pearl was a lacto-ovo vegetarian, and he's one of the greatest bodybuilders ever.

You see, you can be a bodybuilder and care about something that's bigger than your own muscles.

Yours in Iron,

**Arnold
Schwarzenegger**

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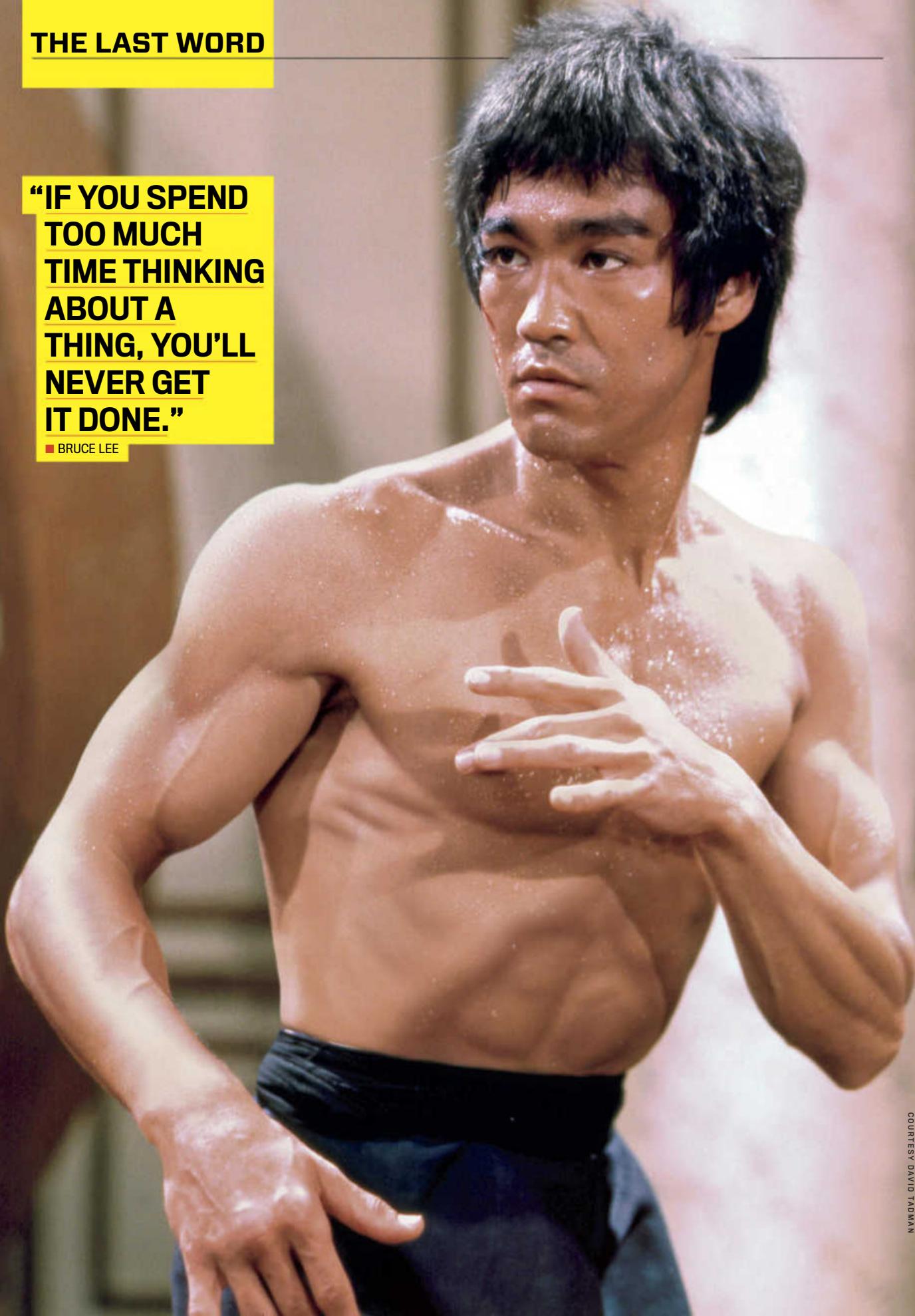
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FN059

THE LAST WORD

**“IF YOU SPEND
TOO MUCH
TIME THINKING
ABOUT A
THING, YOU’LL
NEVER GET
IT DONE.”**

■ BRUCE LEE



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